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AN INTERMEDIATE ARITHMETIC

ELLA M. PIERCE

SILVER, BURDETT AND COMPANY

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An Intermediate Arithmetic

BY

ELLA M. PIERCE

SUPERVISOR OF PRIMARY GRADES, PUBLIC SCHOOLS, PROVIDENCE, R.I.
AUTHOR OF "FIRST STEPS IN ARITHMETIC," AND
"THE ELEMENTS OF ARITHMETIC"

SILVER, BURDETT AND COMPANY
NEW YORK . . . BOSTON . . . CHICAGO

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BY THE SAME AUTHOR

First Steps in Arithmetic

36 cents

The primary aim of this book is to supply both teacher and pupil with a text-book covering the *earliest* foundations of arithmetic. *Twenty* is the extreme of the number combinations taught, but all relations between *one* and *twenty* are thoroughly explained and illustrated.

The Elements of Arithmetic

36 cents

Intended for the third school year, covering all the fundamental facts and processes through numbers to *one hundred.* It takes the work up where "First Steps in Arithmetic" leaves it, presupposing a knowledge of all relations between numbers from one to twenty.

SILVER, BURDETT AND COMPANY
NEW YORK BOSTON CHICAGO

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SUGGESTIONS TO TEACHERS

THIS book is intended for the use of pupils of the fourth and fifth years of school. It presupposes the development and understanding of number facts and relations to one hundred, of the principles of addition and subtraction by endings, of some simple quantity relations, and of the correspondence between those quantity relations and the number facts and relations. It recognizes, however, the truth that, in addition to development and understanding, much drill is necessary so to fix these facts that they shall readily serve their purpose as mathematical tools. That this drill should be given earlier than the fourth year of school should not be expected. If done earlier it will be at the sacrifice of what is far more valuable, — the power and the habit of observing, comparing, and judging concrete material and of mentally picturing conditions and relations.

During the fourth and fifth school years, however, the number facts and principles previously taught should be so thoroughly reviewed and the fundamental processes so thoroughly taught that their use becomes almost automatic. The practice necessary to attain this end should be so planned that each new principle taught calls for repetition and review of previous work. Drill on facts should be so planned as to show their use in performing the processes with larger numbers, and the drill on processes so associated with concrete examples as to keep ever in sight their correspondence with and representation of quantity relations.

The work in this book has been arranged with the purpose of providing such exercises as should secure to the pupils a knowledge of fundamental number facts and relations, a knowledge of fundamental arithmetical processes, the power to picture conditions and see quantity relations, and the understanding of the correspondence between quality relations and number relations both as to facts and processes.

The work in fractions, in areas, in solid content, and in compound numbers which is introduced into the book is not for the purpose of fixing in the mind of the pupil the facts in those subjects. It is for the purpose of providing the mind with objects of observation and comparison. Just as in the preceding years much more is developed than is intended to be permanently fixed, so at this time the facts, processes, relations, and mental power which are to be a permanent possession are acquired by means of much that can be forgotten and learned again. That which, at this stage, should be retained in the memory occurs again and again in all the practice work, which is systematically arranged for that purpose.

The application of the facts and processes to problems should be genuine thought work. The first ones given are simple, more difficult ones being given later, the steps leading to them being carefully graded. All problem work — both oral and written — should be given to the pupils to study and perform before being taken up in the class recitation. True thought work is slow. Time must be allowed for consideration. The fact that the purpose is to develop the power to think, and not to perform a certain number of examples after a model, should never be lost sight of. The teacher, in examining the pupil's work, should endeavor to follow the pupil's thought and discover where it needs strengthening. Many examples can be solved in more than one way. The pupils should be encouraged to find the different ways and to judge which is best and easiest. Whenever pupils are unable to hold mentally the conditions of a problem, they should be encouraged to picture or diagram it. The failure is usually owing to lack of power to picture mentally the conditions, rather than the inability to see, if the conditions were before them, the relation. Explaining to a pupil a problem beyond his power to solve takes it for granted that he sees the conditions, but fails to see the relation. It will often be found that if he draws the conditions, he will see the relation for himself. He will also gain by this means the power and the habit of considering conditions and relations before processes, which are essential to all real mathematical thought. If pupils solve one step problems without difficulty, but fail to solve those containing two steps, they should be led up to the more difficult ones by simpler ones involving the same relations. The reasoning power can only be developed on a foundation of clear perceptions.

We cannot expect that all pupils of a class should solve the same number of problems, or equally difficult ones. As far as possible the teacher should gauge the power of the individual pupils and hold each one to what he can do. Each one will then gain power gradually through real thought.

In addition to the problems given in the book, teachers should give problems of their own in which pupils compute averages such as the teacher is often called upon to do; problems based on population of different places, — first, those near home, then well-known places in the world; problems based on distances in the vicinity and elsewhere; and problems connected in any way with the pupils' own experiences and interests.

E. M. P.

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AN INTERMEDIATE ARITHMETIC

AN INTERMEDIATE ARITHMETIC

SECTION I

ORAL EXERCISES

1. 1. Count from 1 to 10.

2. Count from 10 to 20.

3. Count from 20 to 30.

4. Count from 30 to 40.

5. Count from 40 to 50.

6. Count from 50 to 60.

7. Count from 60 to 70.

8. Count from 70 to 80.

9. Count from 80 to 90.

10. Count from 90 to 100.

11. Count by 10's to 100.

12. How many are 2 tens and 2 ones? How is it written in figures?

13. What does 2 in the first place at the right represent?

14. What does 2 in the second place represent?

15. How many are 3 tens and 3 ones? How is it written in figures?

16. What does 3 in the first place at the right stand for?

17. What does 3 in the second place stand for?

The word UNITS *is usually used instead of* ONES.

18. Read these numbers and tell what each figure stands for:

97	75	59	68	28	81	72
36	93	43	87	39	38	95
84	82	27	54	76	64	37

19. When a number has 2 figures, what does the first figure at the right stand for?

20. What does the second figure stand for?

2. 1. How many are 5 and 4?

2. How many are 4 and 3?

3. 9 is the SUM of 5 and 4.
7 is the SUM of 4 and 3.
What is the sum of 6 and 2?

Finding the sum of numbers is called ADDITION.

The sign of addition is +, *and is read* PLUS, *or* AND.

4. $4+3+2=?$ $3+2+3=?$

5. Take 4 from 7; what is left?

6. Take 3 from 6; what is left?

When one number is taken from another, what is left is called the REMAINDER.

7. Take 2 from 5; what is the remainder?

8. Take 5 from 9; what is the remainder?

9. How much larger is 6 than 4?

10. How much larger is 9 than 6?

2 is the DIFFERENCE between 6 and 4.

3 is the DIFFERENCE between 6 and 9.

11. What is the difference between 5 and 8?

12. What is the difference between 7 and 3?

Finding either a remainder or a difference is called SUBTRACTION.

The sign of subtraction is −, *and is read* MINUS, *or* LESS.

13. Subtract 5 from 9.   15. $9-3=?$

14. Subtract 4 from 8.   16. $7-4=?$

3. Recite these tables, first disregarding the *, then putting any figure from 1 to 9 in place of it.

Note: The drills in addition and subtraction given in Exs. 3–16 include all possible combinations of fundamental facts. While the easier ones occur as often as the harder ones, they are separated so that the harder ones may receive more practice.

(1)
*3 + 1 = ?
*4 + 2 = ?
*1 + 1 = ?
*5 + 2 = ?
*1 + 4 = ?
*2 + 2 = ?
*2 + 5 = ?
*8 + 1 = ?
*3 + 2 = ?

(2)
*7 + 2 = ?
*5 + 3 = ?
*1 + 6 = ?
*7 + 1 = ?
*1 + 5 = ?
*3 + 4 = ?
*5 + 4 = ?
*5 + 1 = ?
*2 + 1 = ?

(3)
*4 + 3 = ?
*1 + 3 = ?
*2 + 6 = ?
*1 + 2 = ?
*4 + 5 = ?
*6 + 2 = ?
*4 + 1 = ?
*6 + 3 = ?
*4 + 4 = ?

(4)
*2 + 3 = ?
*2 + 7 = ?
*2 + 4 = ?
*3 + 5 = ?
*6 + 1 = ?
*1 + 8 = ?
*3 + 6 = ?
*3 + 3 = ?
*1 + 7 = ?

(5)
*4 − 3 = ?
*7 − 2 = ?
*8 − 7 = ?
*3 − 1 = ?
*5 − 2 = ?
*8 − 3 = ?
*6 − 4 = ?
*9 − 8 = ?
*6 − 1 = ?

(6)
*8 − 2 = ?
*9 − 2 = ?
*7 − 6 = ?
*2 − 1 = ?
*5 − 3 = ?
*7 − 3 = ?
*4 − 1 = ?
*6 − 2 = ?
*9 − 1 = ?

(7)
*7 − 5 = ?
*9 − 7 = ?
*9 − 5 = ?
*9 − 3 = ?
*8 − 6 = ?
*9 − 4 = ?
*5 − 1 = ?
*8 − 5 = ?
*6 − 5 = ?

(8)
*8 − 4 = ?
*9 − 6 = ?
*6 − 3 = ?
*4 − 2 = ?
*7 − 1 = ?
*3 − 2 = ?
*7 − 4 = ?
*5 − 4 = ?
*8 − 1 = ?

4. Read these questions, give the answer to each, and tell whether the answer is a sum, a remainder, or a difference.

1. George rode 33 miles and walked 6 miles; how far did he travel?

2. A man cut a 5-foot stick from a stick 18 feet long; how long was the piece which was left?

3. Henry has 47 books at home, and 5 books at school; how many more books has he at home than at school?

4. A boy sent a book to a friend. He paid 82 cents for the book and 6 cents for the postage; what did it cost him?

5. A man had 81 sheep and bought 8 more; how many sheep had he then?

6. A lady had 27 dollars. She spent 2 dollars for a book; how many dollars had she left?

7. A man rode 41 miles and walked 6; how many miles did he travel?

8. A boy who had 48 marbles lost 3 of them; how many marbles had he left?

9. A lady who had 51 books bought a set of 7; how many books had she then?

10. A boy paid 87 cents for a book and 6 cents for postage; how much more did the book cost than the postage?

11. A dealer had 39 dolls; he sold 6 of them; how many dolls had he left?

12. In a schoolroom were 42 pupils, and 7 more entered; how many pupils were there then in the room?

13. Carrie is 5 years old, and her mother is 29; how much younger is Carrie than her mother?

14. What is the sum of 32 and 5?
15. If 3 is taken from 47, what is the remainder?
16. What is the difference between 78 and 3?
17. Add 42 and 7.
18. Subtract 4 from 88.

5. Read these tables first as they stand, then put any figure from 1 to 8 in place of *.

(1)	(2)	(3)	(4)	(5)
*8 + 9 = ?	*1 + 9 = ?	*5 + 7 = ?	*8 + 8 = ?	*3 + 9 = ?
*6 + 6 = ?	*7 + 9 = ?	*7 + 3 = ?	*4 + 8 = ?	*6 + 4 = ?
*3 + 7 = ?	*7 + 4 = ?	*3 + 8 = ?	*6 + 9 = ?	*8 + 3 = ?
*6 + 8 = ?	*4 + 6 = ?	*8 + 4 = ?	*9 + 7 = ?	*5 + 8 = ?
*4 + 9 = ?	*2 + 9 = ?	*9 + 4 = ?	*2 + 8 = ?	*8 + 2 = ?
*6 + 5 = ?	*7 + 7 = ?	*9 + 9 = ?	*9 + 5 = ?	*8 + 6 = ?
*9 + 3 = ?	*7 + 6 = ?	*9 + 8 = ?	*6 + 7 = ?	*5 + 9 = ?
*9 + 1 = ?	*7 + 8 = ?	*5 + 6 = ?	*5 + 5 = ?	*9 + 2 = ?
*7 + 5 = ?	*9 + 6 = ?	*8 + 5 = ?	*4 + 7 = ?	*8 + 7 = ?

Subtract, putting any figure from 1 to 9 in place of *.

(6)	(7)	(8)	(9)	(10)
*6 - 8 = ?	*0 - 2 = ?	*5 - 6 = ?	*1 - 8 = ?	*0 - 6 = ?
*2 - 6 = ?	*2 - 8 = ?	*3 - 4 = ?	*2 - 4 = ?	*1 - 4 = ?
*0 - 4 = ?	*0 - 9 = ?	*0 - 7 = ?	*3 - 7 = ?	*5 - 8 = ?
*4 - 8 = ?	*2 - 7 = ?	*5 - 9 = ?	*7 - 8 = ?	*1 - 5 = ?
*1 - 9 = ?	*0 - 5 = ?	*1 - 3 = ?	*6 - 9 = ?	*4 - 6 = ?
*1 - 7 = ?	*2 - 3 = ?	*7 - 9 = ?	*0 - 3 = ?	*2 - 5 = ?
*3 - 8 = ?	*0 - 8 = ?	*4 - 5 = ?	*3 - 9 = ?	*0 - 1 = ?
*1 - 2 = ?	*4 - 7 = ?	*4 - 9 = ?	*5 - 7 = ?	*2 - 9 = ?
*6 - 7 = ?	*1 - 6 = ?	*3 - 5 = ?	*8 - 9 = ?	*3 - 6 = ?

6. Read these questions, give the answer to each, and tell whether the answer is a sum, a difference, or a remainder.

1. 49 pupils entered a school the first day of the term, 9 the next day, 7 the next day, and 6 the next day; how many pupils entered in all?

2. A man has 33 fowls, 6 horses, 7 cows, and 5 sheep; how many animals has he?

3. George has 62 books, and his little brother has 6; how many more books has George than his little brother?

4. A man had 36 horses and sold 8 of them; how many had he left?

5. A boy rode 28 miles and walked 9 miles; how much farther did he ride than walk?

6. A lady paid 36 dollars for a carpet, 8 dollars for a rug, 9 dollars for a table, and 8 dollars for chairs; how many dollars did she spend?

7. 94 persons were in a railroad train, and 8 got out; how many persons were left in the train?

8. 45 pupils were in a school, and 8 of them left; how many pupils remained in the school?

9. Henry had 67 books; he bought a set containing 8, another set containing 7, and he had 7 given to him; how many books had he then?

10. A street car carried 87 persons down town, and took 9 persons back; how many more persons went down in the car than went back?

11. A man sold a horse for 79 dollars, a sheep for 3 dollars, a pig for 6 dollars, and a calf for 9 dollars; how many dollars did he receive in all?

12. A farmer has 31 cows and 6 horses; how many more cows has he than horses?

13. A man is 46 years old, and his little son is 9 years old; how many years older is he than his son?

14. A person spent the first 28 years of his life in Boston, then lived 8 years in Providence, then 6 years in New York, then 7 years in Chicago; how old was he then?

15. A lady is 52 years old; how old was she 5 years ago?

16. A man is 73 years old; how old was he 7 years ago?

17. In a garden are 48 rose bushes, 6 geraniums, 8 pinks, and 5 palms; how many plants are in the garden?

18. A little boy is 4 years old; how many years must he live to be 53 years old?

19. Walter has 9 cents; he wants to buy a book which costs 95 cents; how many cents does he need?

20. A horse traveled 27 miles one day, 6 miles the next, 9 miles the next, and 9 miles the next; how far did he travel in the four days?

21. Edward spent 36 cents for paper, 7 cents for ink, 5 cents for pens, and 2 cents for a penholder; what did he spend for all?

22. A man sold 7 bananas from a bunch containing 84; how many bananas were left?

23. A man sold 5 pounds of butter from a tub containing 73 pounds; how many pounds were left?

24. Willie has in his bookcase 29 story books, 8 books of travels, 7 books of history, and 7 books of poetry; how many books are in the bookcase?

7. Make problems, using these numbers.

1. $59 + 6 + 8 + 8$.
2. $62 - 4$.
3. The difference between 37 and 8.
4. The difference between 95 and 7.
5. $67 + 9 + 9 + 7$.
6. $79 + 4 + 4 + 5$.
7. $46 - 7$.
8. $84 - 6$.
9. The difference between 31 and 5.
10. $45 + 9 + 5 + 7$.
11. The difference between 51 and 8.
12. $63 - 6$.
13. $74 + 4 + 4 + 8$.
14. $35 + 4 + 5 + 6$.
15. The difference between 42 and 8.
16. $87 - 8$.
17. $67 + 4 + 7 + 3$.
18. $82 - 7$.
19. $93 - 8$.
20. $49 + 2 + 5 + 5$.
21. The difference between 72 and 7.
22. The difference between 71 and 4.
23. $78 + 5 + 4 + 3$.
24. $57 + 2 + 6 + 8$.

8. Add these numbers from left to right, first as they stand, then putting any figure from 1 to 6 in place of *.

1. *3, 2, 6, 9, 8, 1, 2.
2. *1, 1, 9, 4, 7, 6, 8.
3. *5, 5, 2, 2, 9, 1, 9.
4. *9, 1, 4, 6, 4, 6, 2.
5. *3, 4, 5, 4, 7, 5, 6.
6. *2, 1, 8, 8, 2, 1, 9.
7. *1, 5, 7, 3, 8, 3, 7.
8. *8, 2, 8, 1, 8, 2, 7.
9. *5, 4, 4, 7, 3, 7, 3.
10. *4, 2, 9, 2, 8, 5, 7.
11. *4, 4, 3, 7, 8, 4, 1.
12. *6, 4, 3, 6, 5, 5, 4.
13. *7, 2, 9, 2, 6, 2, 9.
14. *7, 1, 7, 4, 7, 3, 5.
15. *7, 3, 5, 1, 6, 4, 6.
16. *1, 7, 4, 8, 2, 2, 7.
17. *4, 5, 7, 3, 6, 3, 7.
18. *2, 5, 4, 1, 9, 3, 8.
19. *2, 4, 8, 2, 9, 4, 8.
20. *6, 2, 5, 5, 6, 4, 5.
21. *3, 3, 5, 6, 4, 7, 3.
22. *3, 1, 9, 1, 7, 8, 9.
23. *1, 4, 8, 4, 6, 3, 7.
24. *1, 2, 9, 1, 8, 5, 9.
25. *3, 6, 5, 5, 4, 6, 3.
26. *6, 3, 2, 5, 5, 2, 8.
27. *1, 6, 8, 3, 4, 7, 6.
28. *1, 8, 6, 5, 7, 1, 4.
29. *2, 3, 9, 1, 6, 9, 8.
30. *3, 7, 6, 4, 5, 2, 6.
31. *5, 1, 6, 7, 3, 3, 6.
32. *6, 1, 6, 2, 9, 2, 8.
33. *2, 8, 9, 1, 9, 1, 9.
34. *2, 2, 8, 3, 8, 4, 5.
35. *2, 6, 8, 2, 3, 6, 8.
36. *5, 3, 9, 1, 9, 3, 6.
37. *8, 1, 3, 6, 7, 1, 5.
38. *1, 3, 7, 3, 8, 8, 5.
39. *5, 2, 7, 3, 7, 1, 9.
40. *1, 9, 7, 3, 1, 4, 7.
41. *4, 1, 7, 5, 5, 5, 4.
42. *3, 5, 6, 4, 5, 2, 8.
43. *4, 3, 9, 1, 9, 1, 9.
44. *4, 6, 1, 2, 9, 1, 9.
45. *2, 7, 8, 2, 9, 2, 4.

9. 1. 3 tens and 2 tens are how many tens?

2. 3 tens are how many? 2 tens are how many? 5 tens are how many?

3. $30+20=?$
4. $20+70=?$
5. $50+20=?$
6. $70+10=?$
7. $20+20=?$
8. $20+50=?$
9. $20+60=?$
10. $30+10=?$
11. $30+50=?$
12. $10+80=?$
13. $40+50=?$
14. $20+30=?$
15. $10+50=?$
16. $60+10=?$
17. $30+30=?$
18. $70+20=?$
19. $10+40=?$
20. $50+10=?$
21. $30+60=?$
22. $40+30=?$
23. $10+10=?$
24. $20+40=?$
25. $10+70=?$
26. $50+30=?$
27. $60+30=?$
28. $20+10=?$
29. $30+40=?$
30. $40+20=?$
31. $60+20=?$
32. $40+10=?$
33. $40+40=?$
34. $10+60=?$
35. $50+40=?$
36. $10+30=?$
37. $80+10=?$
38. $10+20=?$

10. 1. $90-40=?$
2. $90-10=?$
3. $80-30=?$
4. $50-10=?$
5. $40-30=?$
6. $80-20=?$
7. $70-20=?$
8. $40-20=?$
9. $80-70=?$
10. $70-50=?$
11. $90-20=?$
12. $50-30=?$
13. $80-50=?$
14. $80-10=?$
15. $60-20=?$
16. $20-10=?$
17. $70-40=?$
18. $90-30=?$
19. $60-50=?$
20. $90-70=?$
21. $60-30=?$
22. $70-60=?$
23. $60-10=?$
24. $50-20=?$
25. $30-10=?$
26. $90-80=?$
27. $40-10=?$
28. $90-50=?$
29. $70-10=?$
30. $80-40=?$
31. $50-40=?$
32. $80-60=?$
33. $60-40-?$
34. $70-30=?$
35. $30-20=?$
36. $90-60=?$

11. 1. 41 + 50 = ?
2. 15 + 70 = ?
3. 41 + 40 = ?
4. 26 + 10 = ?
5. 13 + 50 = ?
6. 51 + 40 = ?
7. 43 + 20 = ?
8. 35 + 40 = ?
9. 74 + 20 = ?
10. 72 + 10 = ?
11. 13 + 10 = ?
12. 32 + 20 = ?
13. 24 + 50 = ?
14. 32 + 30 = ?
15. 13 + 60 = ?
16. 69 + 20 = ?
17. 36 + 60 = ?
18. 17 + 20 = ?
19. 28 + 40 = ?
20. 14 + 40 = ?
21. 39 + 10 = ?
22. 64 + 10 = ?
23. 61 + 30 = ?
24. 28 + 20 = ?
25. 52 + 10 = ?
26. 29 + 30 = ?
27. 18 + 80 = ?
28. 27 + 60 = ?
29. 57 + 30 = ?
30. 25 + 70 = ?
31. 86 + 10 = ?
32. 45 + 30 = ?
33. 16 + 30 = ?
34. 39 + 50 = ?
35. 48 + 10 = ?
36. 57 + 20 = ?

12. 1. 81 – 40 = ?
2. 73 – 50 = ?
3. 68 – 30 = ?
4. 85 – 20 = ?
5. 48 – 30 = ?
6. 71 – 20 = ?
7. 95 – 20 = ?
8. 94 – 70 = ?
9. 96 – 60 = ?
10. 92 – 50 = ?
11. 72 – 60 = ?
12. 87 – 70 = ?
13. 36 – 10 = ?
14. 27 – 10 = ?
15. 98 – 30 = ?
16. 49 – 20 = ?
17. 73 – 10 = ?
18. 84 – 60 = ?
19. 50 – 30 = ?
20. 89 – 30 = ?
21. 54 – 20 = ?
22. 73 – 30 = ?
23. 91 – 40 = ?
24. 35 – 20 = ?
25. 72 – 40 = ?
26. 56 – 10 = ?
27. 47 – 10 = ?
28. 63 – 40 = ?
29. 96 – 80 = ?
30. 64 – 20 = ?
31. 82 – 50 = ?
32. 57 – 40 = ?
33. 61 – 50 = ?
34. 81 – 10 = ?
35. 99 – 10 = ?
36. 68 – 10 = ?

13. Note: Think 45 and 40 are 85, and 4 are 89. Show, if necessary, that $45 + 44$ equals $45 + 40 + 4$.

1. $45+44=?$
2. $53+21=?$
3. $41+17=?$
4. $36+51=?$
5. $16+33=?$
6. $42+33=?$
7. $87+11=?$
8. $21+74=?$
9. $53+36=?$
10. $25+62=?$
11. $12+85=?$
12. $24+35=?$
13. $52+10=?$
14. $23+24=?$
15. $64+31=?$
16. $65+11=?$
17. $32+14=?$
18. $13+45=?$
19. $24+43=?$
20. $15+23=?$
21. $31+61=?$
22. $61+23=?$
23. $13+62=?$
24. $34+32=?$
25. $28+51=?$
26. $32+27=?$
27. $12+16=?$
28. $71+18=?$
29. $36+42=?$
30. $41+25=?$
31. $53+43=?$
32. $71+26=?$
33. $41+52=?$
34. $12+71=?$
35. $27+12=?$
36. $14+54=?$

14. Note: Think 29 less 10 are 19, less 3 are 16. Show, if necessary, that $29 - 13$ equals $29 - 10 - 3$.

1. $29-13=?$
2. $64-23=?$
3. $57-16=?$
4. $49-31=?$
5. $98-65=?$
6. $37-21=?$
7. $57-32=?$
8. $96-24=?$
9. $72-21=?$
10. $67-45=?$
11. $76-45=?$
12. $93-72=?$
13. $78-37=?$
14. $89-18=?$
15. $85-73=?$
16. $89-37=?$
17. $78-14=?$
18. $87-64=?$
19. $43-11=?$
20. $86-21=?$
21. $97-83=?$
22. $58-26=?$
23. $59-46=?$
24. $75-54=?$
25. $95-52=?$
26. $98-32=?$
27. $74-61=?$
28. $69-14=?$
29. $96-43=?$
30. $98-11=?$
31. $48-23=?$
32. $89-52=?$
33. $36-12=?$
34. $85-41=?$
35. $64-52=?$
36. $69-35=?$

15. Note: 38 + 17 equals 38 + 10 + 7. Think 38 plus 10 are 48, plus 7 are 55.

1. 38 + 17 = ?
2. 49 + 32 = ?
3. 27 + 35 = ?
4. 19 + 34 = ?
5. 59 + 36 = ?
6. 48 + 26 = ?
7. 15 + 19 = ?
8. 19 + 61 = ?
9. 28 + 64 = ?
10. 27 + 48 = ?
11. 35 + 58 = ?
12. 18 + 22 = ?
13. 79 + 13 = ?
14. 53 + 28 = ?
15. 17 + 46 = ?
16. 18 + 53 = ?
17. 63 + 19 = ?
18. 66 + 25 = ?
19. 37 + 43 = ?
20. 27 + 57 = ?
21. 26 + 24 = ?
22. 54 + 17 = ?
23. 34 + 39 = ?
24. 45 + 17 = ?
25. 32 + 29 = ?
26. 26 + 17 = ?
27. 15 + 75 = ?
28. 46 + 48 = ?
29. 48 + 35 = ?
30. 54 + 36 = ?
31. 46 + 29 = ?
32. 19 + 65 = ?
33. 23 + 67 = ?
34. 25 + 46 = ?
35. 37 + 54 = ?
36. 74 + 18 = ?
37. 52 + 28 = ?
38. 66 + 16 = ?
39. 69 + 28 = ?
40. 37 + 49 = ?
41. 28 + 58 = ?
42. 39 + 37 = ?
43. 58 + 19 = ?
44. 19 + 79 = ?
45. 41 + 49 = ?

16. Note: 90 – 41 equals 90 – 40 – 1. Think 90 less 40 are 50, less 1 are 49.

1. 90 – 41 = ?
2. 85 – 49 = ?
3. 42 – 29 = ?
4. 96 – 57 = ?
5. 84 – 39 = ?
6. 94 – 35 = ?
7. 93 – 64 = ?
8. 51 – 32 = ?
9. 40 – 17 = ?
10. 52 – 18 = ?
11. 91 – 75 = ?
12. 70 – 34 = ?
13. 81 – 26 = ?
14. 54 – 28 = ?
15. 73 – 46 = ?
16. 62 – 43 = ?
17. 76 – 58 = ?
18. 87 – 39 = ?
19. 31 – 19 = ?
20. 30 – 19 = ?
21. 86 – 59 = ?
22. 32 – 17 = ?
23. 61 – 34 = ?
24. 43 – 27 = ?

25. $74 - 47 = ?$
26. $63 - 45 = ?$
27. $72 - 25 = ?$
28. $60 - 25 = ?$
29. $53 - 39 = ?$
30. $95 - 56 = ?$
31. $71 - 43 = ?$
32. $83 - 68 = ?$
33. $64 - 26 = ?$
34. $50 - 28 = ?$
35. $41 - 27 = ?$
36. $65 - 38 = ?$
37. $97 - 48 = ?$
38. $92 - 46 = ?$
39. $80 - 42 = ?$
40. $75 - 37 = ?$
41. $91 - 68 = ?$
42. $98 - 59 = ?$
43. $80 - 66 = ?$
44. $82 - 54 = ?$
45. $90 - 33 = ?$

SECTION II

NUMBERS TO ONE THOUSAND

17. 1. Count from 1 to 10.

2. Count by tens from 10 to 100.

3. What is the largest number that can be written with one figure?

4. What is the largest number that can be written with two figures?

5. When a number has only one figure, what does that figure represent?

6. When a number has two figures, what does the first figure at the right represent? the second?

7. Read these numbers, and tell what each figure represents:

83
79
28
66
14
32
51
97
45

8. Count by hundreds from one hundred to ten hundred.

9. When a number has three figures, the figure in the third place stands for what?

10. Read these numbers:

600
400
200
100
900
300
700
500
800

11. With short sticks in bundles of tens and hundreds lay four hundreds, three tens, five units. Read the number.

12. Lay and read:

Six hundreds, seven tens, three units.
Five hundreds, two tens, one unit.
Eight hundreds, nine tens, seven units.
Four hundreds, one ten, two units.
Nine hundreds, six tens, five units.
Two hundreds, four tens, six units.
Six hundreds, one ten, five units.
Seven hundreds, five tens, eight units.
One hundred, eight tens, four units.
Three hundreds, one ten, nine units.
One hundred, one ten, one unit.

13. How many figures are needed to write one hundred? four hundred? nine hundred?

14. What is the figure in the units' place? in the tens' place?

15. Four hundred thirty-five is how many hundreds, how many tens, and how many units?

16. How many figures are needed to write it? What are they? What does each stand for?

17. Tell what figures are needed to write these numbers, and what each one stands for:

Five hundred sixty-three.
Eight hundred forty-four.
Nine hundred seventy-two.
Four hundred twelve.
Six hundred twenty-nine.
Three hundred fifteen.

Seven hundred ninety-two.
Two hundred eighty-one.
Nine hundred ninety-nine.
One hundred eleven.
Four hundred sixteen.
Eight hundred fifty-eight.

18. Read these numbers:

462
533
841
711
999
864
527
656
213
111
375
987

19. Lay and read eight hundreds, four tens.

20. What figures are used to write forty? What does each stand for?

21. What figures should be used to write eight hundred forty?

22. Lay, read, and tell what figures should be used to write:

Seven hundreds, two tens.
Three hundreds, nine tens.
Nine hundreds, three tens.
Six hundreds, seven tens.
Two hundreds, eight tens.

23. Read these numbers:

460
720
810
340
290
930
150
680
570

24. Lay and read seven hundreds, five units.

25. Seven hundred five is how many hundreds, how many tens, and how many units?

26. What figures should be used to write seven hundred five?

27. Lay, read, and tell what figures should be used to write:

Eight hundreds, four units.
Six hundreds, three units.
Five hundreds, seven units.
Nine hundreds, six units.
Three hundreds, one unit.
Four hundreds, nine units.
Seven hundreds, five units.

28. Read these numbers:

502
809
703
401
608
904
105
207
306

WRITTEN EXERCISE

Write these numbers in figures, placing units under units, tens under tens, and hundreds under hundreds:

Four hundred eighty-four.
Seven hundred thirty-nine.
Two hundred seventy.
Six hundred sixty-six.
Three hundred nine.
Eight hundred twenty.
Fifty-nine.
Six hundred three.
Five.
Forty-five.
Two hundred forty-five.
Seven hundred ninety.
Seven hundred nine.
Eighty.
Nine hundred.
Seven hundred four.
Seven hundred forty.
Ninety.
Nine hundred ninety-one.
One hundred eleven.
Eight hundred.

18. Addition.

1. What is the sum of 4 and 3?

2. What is the sum of 9 and 5?

3. What is the sum of 8, 6, 5, and 3?

4. Find the sum of the numbers in each of these columns, adding from the bottom upward:

a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*
4	9	8	6	5	7	9	2	3
6	1	2	4	5	3	1	8	7
4	9	8	6	5	7	9	2	3
6	1	2	4	5	3	1	8	7
9	9	8	7	9	9	9	7	9
1	3	6	4	4	1	2	3	2
1	6	1	4	1	6	4	1	1

5. Find the sum of the numbers in each of these examples, adding first the units' column, then adding the tens in the sum of that column to the tens' column. Add from the bottom upward.

a	*b*	*c*	*d*	*e*	*f*
86	99	95	97	89	28
24	11	15	13	21	82
86	99	95	97	89	28
24	11	15	13	21	82
35	86	59	46	78	29
45	23	51	27	15	47
21	42	13	32	53	61

g	*h*	*i*	*j*	*k*	*l*
53	24	75	47	39	34
57	86	35	63	71	76
53	24	75	47	39	34
57	86	35	63	71	76
48	28	87	42	35	36
21	72	11	68	73	53
22	42	24	31	35	41

19. 1. In a six-room school building there are, in the first room 45 pupils, in the second 42, in the third 48, in the fourth 46, in the fifth 43, and in the sixth 47; how many pupils are in the building?

2. Henry sold 52 papers Monday, 47 Tuesday, 59 Wednesday, 50 Thursday, 48 Friday, and 63 Saturday; how many papers did he sell that week?

3. A grocer sold 43 pounds of butter in one day, 37 the next, 46 the next, 54 the next, and 39 the next; how many pounds did he sell in all?

4. On one bunch of bananas are 87 bananas, on another 82, on another 96, on another 92, on another 75, and on another 80; how many bananas are on all of the bunches?

5. A grocer bought in one week 25 barrels of flour, another week 37, another week 42, another week 27, another week 35, and another week 40; how many barrels of flour did he buy in the six weeks?

6. A dealer sold 48 bushels of wheat, 65 bushels of oats, 38 bushels of corn, 26 bushels of rye, and 52 bushels of barley; how many bushels of grain did he sell?

NOTE: Mark each result so as to show plainly what it means. *Lbs.* may be used for *pounds*, *bbls.* may be used for *barrels*, *bu.* may be used for *bushels.*

20. Subtraction.

1. Finding a difference or a remainder is called what?

2. What is the difference between 8 and 12?

3. What is the remainder, if 9 is taken from 15?

4. Subtract 9 from 18.

The larger number in a subtraction example is called the MINUEND; *the smaller number is called the* SUBTRAHEND.

5. 86 is how many units and how many tens?

6. If 4 of the units and 5 of the tens are taken away, what number is taken away?

7. What number is left?

8. Subtract the following, taking first the units from the units, then the tens from the tens.

a	*b*	*c*	*d*	*e*	*f*
46	87	39	68	75	99
23	54	12	25	32	46

9. One ten is equal to how many units?

10. We wish to take 28 from 52, beginning with the units. What can we put with the two units so that we can take away the 8 units?

11. Where shall we get it?

12. 8 units from 12 units leave what?

13. What is left in the tens' place?

14. 2 tens from 4 tens leave what?

15. 28 from 52 leaves what?

16. Subtract the following:

a	*b*	*c*	*d*	*e*	*f*
32	87	56	71	93	68
15	39	18	37	58	49

g	*h*	*i*	*j*	*k*	*l*
47	39	87	72	95	66
21	13	69	46	38	24

m	*n*	*o*	*p*	*q*	*r*
52	31	86	91	55	98
27	17	41	37	16	75

s	*t*	*u*	*v*	*w*	*x*
62	84	96	84	93	98
35	27	32	71	24	39

17. If George walked 16 miles and rode 38 miles, how much farther did he ride than walk?

18. If John earned 75 cents and spent 37 cents, how many cents had he left?

19. There are 42 children in the schoolroom and 13 children in the yard; how many more children are in the schoolroom than in the yard?

20. There were 44 yards in a piece of cloth, and the dealer cut off 26 yards; how many yards were left in the piece?

21. 1. From 342 take 121, taking away first the units, then the tens, then the hundreds.

2. Subtract the following in the same manner:

a	*b*	*c*	*d*	*e*	*f*
427	645	867	593	763	964
113	312	203	102	230	51

3. Subtract the following, considering one ten in each of the minuends as ten units:

a	*b*	*c*	*d*	*e*	*f*
463	844	975	864	796	843
127	236	329	257	138	226

4. One hundred equals how many tens?

5. Subtract the following, considering one of the hundreds in each of the minuends as ten tens:

a	*b*	*c*	*d*	*e*	*f*
526	417	846	931	857	629
132	263	382	460	691	392

6. Subtract the following, taking the units from units, and the tens from tens, when it is possible, and considering one ten as ten units, or one hundred as ten tens, when it is not:

a	*b*	*c*	*d*	*e*	*f*
816	543	672	846	836	743
125	297	153	519	259	186

g	*h*	*i*	*j*	*k*	*l*
943	640	890	530	770	860
127	123	171	162	125	393

22. 1. One hundred equals how many tens?

2. If one of the tens is changed to units, in what form is the hundred?

3. Subtract the following, considering the hundred as 9 tens and 10 units:

a	*b*	*c*	*d*	*e*	*f*	*g*	*h*
100	100	100	100	100	100	100	100
72	84	58	36	42	69	37	25

4. Subtract the following, considering one of the hundreds as 9 tens and 10 units:

a	*b*	*c*	*d*	*e*	*f*	*g*	*h*
200	600	500	800	900	300	700	400
37	123	241	139	58	75	152	204

5. Subtract the following, considering one of the hundreds as 9 tens and 10 units, or as 10 tens, according to what is needed:

a	*b*	*c*	*d*	*e*	*f*	*g*	*h*
201	508	607	902	306	504	703	809
146	312	143	527	125	131	279	168

6. Subtract:

a	*b*	*c*	*d*	*e*	*f*	*g*	*h*
205	300	701	802	908	703	209	600
127	138	420	611	502	196	129	364

23. Subtract:

(1)	(2)	(3)	(4)	(5)	(6)
85	47	563	725	635	761
21	23	142	119	208	159

(7)	(8)	(9)	(10)	(11)	(12)
838	649	416	518	319	711
152	293	178	129	126	401

(13)	(14)	(15)	(16)	(17)	(18)
500	601	408	800	903	809
127	239	127	165	462	192

(19)	(20)	(21)	(22)	(23)	(24)
410	510	720	604	563	725
165	138	269	139	197	296

24. 1. A man rode 46 miles on his bicycle one day, 37 the next, 52 the next, 36 the next, and 43 the next; how far did he ride in all?

2. A man rode 270 miles in one week, and 195 miles the next week; how much farther did he ride the first week than the second?

3. A man started out to ride 500 miles; when he had gone 326 miles, how far had he still to go?

4. A gardener planted 52 rose bushes, 63 syringas, 47 hawthorns, and 38 spireas; how many bushes did he plant?

5. In an orchard are 26 pear trees, 37 apple trees, 42 peach trees, and 48 quince trees; how many trees are in the orchard?

6. $87 + 64 + 38 + 92 + 75 + 46 + 83 = ?$

7. $804 - 275 = ?$

8. What is the difference between 509 and 231?

9. $900 - 751 = ?$

10. $69 + 28 + 37 + 56 + 82 + 97 + 49 = ?$

25. 1. A boy earned 87 cents one day, 56 cents the next day, 65 cents the next day, 75 cents the next day, and 84 cents the next day; how many cents did he earn in the five days?

2. A boy who has 75 cents wants a book which costs 90 cents; how many more cents does he need?

3. A boy sold 46 papers one day, 38 the next, 52 the next, 42 the next, 39 the next, and 45 the next; how many papers did he sell in the six days?

4. A railroad train going west carried 563 passengers, and returning 375 passengers; how many more passengers did it carry when going than when returning?

5. A man bought a lot of land for 984 dollars and paid 629 dollars; how much does he still owe?

6. $87 + 96 + 74 + 69 + 95 + 38 + 47 = ?$

7. $800 - 326 = ?$

8. $965 - 599 = ?$

9. $89 + 32 + 79 + 68 + 45 + 93 + 78 = ?$

10. $29 + 85 + 73 + 48 + 99 + 82 + 56 = ?$

26. 1. What is the sum of 524 and 396?

2. What is the difference between 675 and 299?

3. The minuend is 809 and the subtrahend is 427; what is the remainder?

4. Arrange these numbers in a column, in the order of their values, writing the smallest number first: 864, 235, 721, 608, 695, 352, 999, 103, 459.

5. 802 – 609 = ?

6. 700 – 391 = ?

7. 453 – 126 = ?

8. 594 – 236 = ?

9. 410 – 175 = ?

10. 810 – 342 = ?

27. Add:

(1)	(2)	(3)	(4)	(5)
46	37	56	88	68
83	29	84	64	72
97	42	97	59	27
45	99	28	84	39
36	68	36	28	68
79	75	77	39	74
48	83	98	77	27

(6)	(7)	(8)	(9)	(10)
88	49	43	79	85
69	83	75	63	92
73	97	92	52	87
48	68	29	75	63
29	46	58	91	59
67	85	87	84	47
66	94	46	36	26

Subtract:

(11)	(12)	(13)	(14)	(15)
406	508	840	730	910
213	129	127	264	276

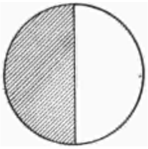
(16)	(17)	(18)	(19)	(20)
842	736	947	654	735
127	194	299	413	201

SECTION III

ORAL EXERCISES

28.

a



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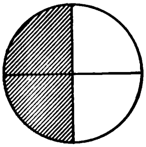

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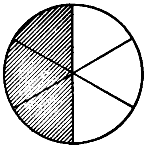

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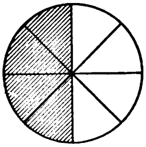

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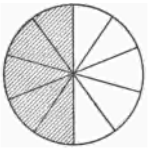
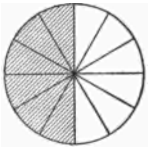


f



1. Into how many parts is the circle *a* divided?
2. How do the parts compare in size?
3. What is the name of each part?
4. Into how many parts is the circle *b* divided?
5. How do the parts compare in size?
6. What is the name of each part?
7. How many fourths equal one whole circle? one half?
8. Into how many parts is the circle *c* divided?
9. How do the parts compare in size?
10. What is the name of each part?
11. How many sixths are in a whole circle? in a half circle?
12. Into how many parts is the circle *d* divided?
13. How do the parts compare in size?
14. What is the name of each part?

15. How many eighths are in a whole circle? in a half circle? in a quarter circle?

16. Into how many parts is the circle *e* divided?

17. How do the parts compare in size?

18. What is the name of each part?

19. How many tenths are in a whole circle? in a half circle?

20. Into how many parts is the circle *f* divided?

21. How do the parts compare in size?

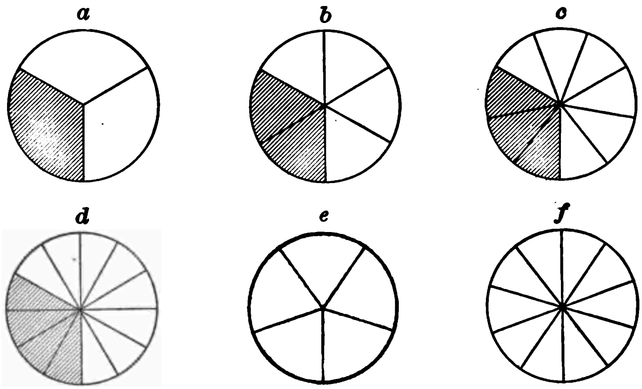
22. What is the name of each part?

23. How many twelfths are in a whole circle? in a half circle? in a quarter circle?

24. One half equals how many fourths? how many sixths? how many eighths? how many tenths? how many twelfths?

25. One fourth equals how many eighths? how many twelfths?

29.



1. Into how many parts is the circle *a* divided?

2. What is the name of each part?

3. Into how many parts is the circle *b* divided?

4. What is the name of each part?

5. What part of the circle is shaded?

6. One third equals how many sixths?

7. Into how many parts is the circle *c* divided?

8. What is the name of each part?

9. What part of the circle is shaded?

10. How many ninths are in a whole circle?

11. How many ninths equal one third?

12. Into how many parts is the circle *d* divided?

13. What is the name of each part?

14. How many twelfths are in a whole circle?

15. How many twelfths equal a third?

16. How many twelfths equal a sixth?

17. How many thirds of circle *d* are shaded? are not shaded?

18. How many sixths of it are shaded? are not shaded?

19. How many twelfths of it are shaded? are not shaded?

20. Into how many parts is the circle *e* divided?

21. What is the name of each part?

22. Into how many parts is the circle *f* divided?

23. What is the name of each part?

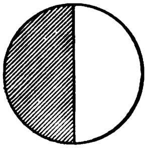
24. How many tenths in the whole circle?

25. How many fifths in the whole circle?

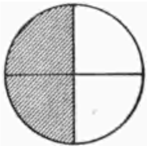
26. How many tenths are equal to one fifth?

30.

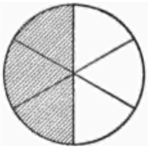
a



b



c



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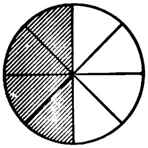
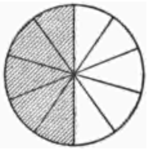
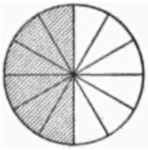


e



f



1. Into how many parts is one half of the circle *b* divided?

2. Each part is what part of the whole circle? what part of the half circle?

3. One half of one half is what?

4. Into how many parts is one half of the circle *c* divided?

5. Each part is what part of the whole circle? what part of the half circle?

6. One third of one half is what?

7. Into how many parts is one half of the circle *d* divided?

8. Each part is what part of the whole circle? of the half circle?

9. One fourth of one half is what?

10. Into how many parts is the circle *e* divided?

11. Each part is what part of the whole circle? of the half circle?

12. One fifth of one half is what?

13. Into how many parts is one half of the circle *f* divided?

14. Each part is what part of the whole circle? of the half circle?

15. One sixth of one half equals what?

16. Draw a circle or square and divide it into fourths. Divide each fourth into halves. What is one half of one fourth?

17. Draw a circle or square and divide it into thirds. Divide each third into halves. What is one half of one third?

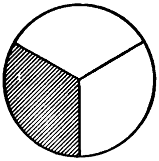
18. Draw a circle or square and divide it into fifths. Divide each fifth into halves. What is one half of one fifth?

19. Draw a circle or square and divide it into fourths. Divide each fourth into thirds. What is one third of one fourth?

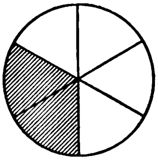
20. Draw a circle or square and divide it into thirds. Divide each third into fourths. What is one fourth of one third?

31.

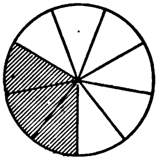
a



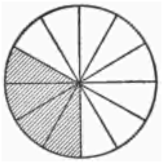
b



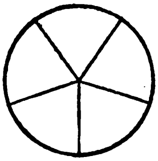
c



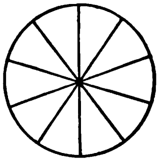
d



e



f



1. Into how many parts is one third of circle *b* divided?

2. Each part is what part of the whole circle? what part of a third of the circle?

3. One half of one third is what?

4. Into how many parts is one third of circle *c* divided?

5. Each part is what part of the whole circle? what part of a third of the circle?

6. One third of one third is what?

7. Into how many parts is one third of circle *d* divided?

8. Each part is what part of the whole circle? what part of a third of the circle?

9. One fourth of one third is what?

10. One sixth is what part of one third?

11. One ninth is what part of one third?

12. One twelfth is what part of one third?

32. 1. One half is written $\frac{1}{2}$; one third, $\frac{1}{3}$; three fourths, $\frac{3}{4}$; etc.

2. Read these expressions: $\frac{1}{3}$; $\frac{1}{6}$; $\frac{1}{8}$; $\frac{1}{10}$; $\frac{1}{12}$; $\frac{1}{4}$; $\frac{5}{6}$; $\frac{3}{8}$; $\frac{6}{10}$; $\frac{5}{9}$; $\frac{6}{8}$; $\frac{5}{7}$; $\frac{7}{12}$; $\frac{2}{3}$.

3. $\frac{1}{2}$ of $\frac{1}{2} = ?$

4. $\frac{1}{4}$ of $\frac{1}{2} = ?$

5. $\frac{1}{6}$ of $\frac{1}{2} = ?$

6. $\frac{1}{5}$ of $\frac{1}{2} = ?$

7. $\frac{1}{3}$ of $\frac{1}{2} = ?$

8. $\frac{1}{2}$ of $\frac{1}{4} = ?$

9. $\frac{1}{2}$ of $\frac{1}{6} = ?$

10. $\frac{1}{2}$ of $\frac{1}{5} = ?$

11. $\frac{1}{2}$ of $\frac{1}{3} = ?$

12. $\frac{1}{3}$ of $\frac{1}{4} = ?$

13. $\frac{1}{4}$ of $\frac{1}{3} = ?$

14. $\frac{1}{3}$ of $\frac{1}{3} = ?$

15. $\frac{1}{2} = \frac{?}{4}$.

16. $\frac{1}{2} = \frac{?}{8}$.

17. $\frac{1}{2} = \frac{?}{10}$.

18. $\frac{1}{2} = \frac{?}{6}$.

19. $\frac{1}{2} = \frac{?}{12}$.

20. $\frac{1}{3} = \frac{?}{6}$.

21. $\frac{1}{3} = \frac{?}{9}$.

22. $\frac{1}{3} = \frac{?}{12}$.

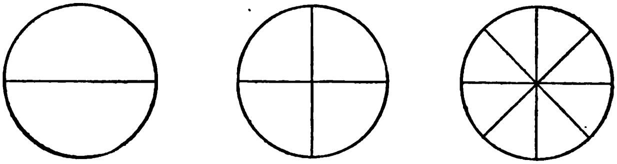
23. $\frac{1}{4} = \frac{?}{8}$.

24. $\frac{1}{4} = \frac{?}{12}$.

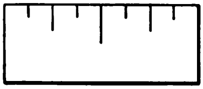
25. $\frac{1}{5} = \frac{?}{10}$.

26. $\frac{1}{6} = \frac{?}{12}$.

33.



1. How many half circles equal one whole circle ?
2. If one half of a circle is erased, what part is left ?
3. How many quarter circles equal one circle ?
4. If one fourth of a circle is erased, what part is left ?
5. How many fourths of a circle equal one half circle ?
6. One half of a circle and one fourth are what part of the circle ?
7. If three fourths of a circle are erased, what part is left ?
8. What is the difference between a half circle and a fourth of a circle ?
9. What is the difference between three fourths and one fourth ?
10. What is the difference between a half and three fourths ?
11. How many eighths equal one whole one ?
12. How many eighths equal one half ?
13. How many eighths equal one fourth ?
14. How many eighths equal three fourths ?
15. Which is greater, one half or three eighths ? how much greater ?
16. Which is greater, one half or five eighths ? how much greater ?
17. What is the difference between three fourths and seven eighths ?



18. One half and three eighths are what?

19. How long is this rule?

20. How many half inches long is it?

21. How many quarter inches long is it?

22. How many eighth inches long is it?

23. A half inch and a quarter inch are what part of an inch?

24. Three quarters of an inch and one eighth of an inch are what part of an inch?

25. What is the difference between three fourths of an inch and three eighths of an inch?

DICTATION EXERCISE

Draw a circle; divide it into two equal parts; in each part write its name in figures.

Draw a circle; divide it into four equal parts; in each part write its name in figures.

Draw a circle; divide it into eight equal parts; in each part write its name in figures.

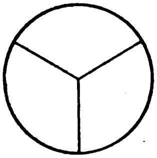
$\frac{1}{2}+\frac{1}{2}=?$
$1=\frac{?}{2}.$
$1-\frac{1}{2}=?$
$1=\frac{?}{4}.$
$1-\frac{1}{4}=?$
$1-\frac{3}{4}=?$
$\frac{1}{4}+\frac{1}{4}=?$
$\frac{1}{2}=\frac{?}{4}.$
$\frac{1}{2}-\frac{1}{4}=?$
$\frac{1}{2}+\frac{1}{4}=?$

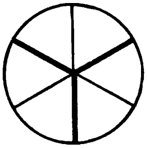
$\frac{3}{4}-\frac{1}{2}=?$
$\frac{3}{4}-\frac{1}{4}=?$
$\frac{3}{4}+\frac{1}{4}=?$
$1=\frac{?}{8}.$
$\frac{1}{2}=\frac{?}{8}.$
$\frac{1}{4}=\frac{?}{8}.$
$\frac{3}{4}=\frac{?}{8}.$
$\frac{3}{8}+\frac{1}{8}=?$
$\frac{1}{2}-\frac{1}{8}=?$
$\frac{1}{2}-\frac{3}{8}=?$

$\frac{1}{2}+\frac{1}{8}=?$
$\frac{1}{2}+\frac{3}{8}=?$
$\frac{7}{8}-\frac{3}{8}=?$
$\frac{5}{8}-\frac{3}{8}=?$
$\frac{5}{8}-\frac{1}{2}=?$
$\frac{5}{8}-\frac{1}{8}=?$
$\frac{1}{8}+\frac{1}{8}=?$
$\frac{1}{8}+\frac{1}{4}=?$
$\frac{5}{8}+\frac{1}{8}=?$
$\frac{5}{8}-\frac{1}{4}=?$

$\frac{3}{4}-\frac{1}{8}=?$
$\frac{3}{4}-\frac{3}{8}=?$
$\frac{3}{4}-\frac{5}{8}=?$
$\frac{3}{4}+\frac{1}{8}=?$
$\frac{7}{8}-\frac{1}{8}=?$
$\frac{7}{8}-\frac{5}{8}=?$
$\frac{7}{8}+\frac{1}{8}=?$
$1-\frac{1}{8}=?$
$1-\frac{5}{8}=?$
$1-\frac{3}{8}=?$

34.





1. One third equals how many sixths?
2. Two thirds are equal to how many sixths?
3. One half equals how many sixths?
4. Which is greater, one third or one half? how much greater?
5. What is the difference between two thirds and five sixths?
6. One third and one half are what?
7. Two thirds and one sixth are what?
8. One half and one sixth are what?
9. One third and one sixth are what?
10. Two thirds less one sixth is what?
11. One half less one sixth is what?
12. One less one sixth is what?
13. Two thirds less one half is what?
14. One half less one third is what?

DICTATION EXERCISE

Draw a circle; divide it into three equal parts; in each part write its name in figures.

Draw a circle; divide it into six equal parts; in each part write its name in figures.

$\frac{1}{3}+\frac{1}{3}=?$

$\frac{1}{2}+\frac{1}{3}=?$

$\frac{1}{2}-\frac{1}{3}=?$

$1-\frac{1}{3}=?$

$1-\frac{2}{3}=?$

$\frac{1}{2}+\frac{1}{6}=?$

$\frac{1}{2}-\frac{1}{6}=?$

$\frac{1}{3}+\frac{1}{6}=?$

$\frac{2}{3}-\frac{1}{6}=?$

$\frac{2}{3}-\frac{1}{2}=?$

$\frac{2}{3}+\frac{1}{6}=?$

$1-\frac{1}{6}=?$

$\frac{1}{6}+\frac{5}{6}=?$

$1-\frac{5}{6}=?$

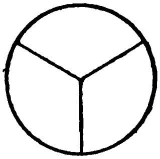
$1=\frac{?}{6}.$

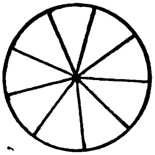
$\frac{1}{2}=\frac{?}{6}.$

$\frac{1}{3}=\frac{?}{6}.$

$\frac{2}{3}=\frac{?}{6}.$

35.





1. One third of anything equals how many ninths of it?

2. Two thirds equal how many ninths?

3. Which is greater, five ninths or two thirds? How much greater?

4. What is the difference between seven ninths and two thirds?

5. One third and one ninth are what?

6. One third and four ninths are what?

7. One third less one ninth is what?

8. Two thirds less one ninth is what?

9. Two thirds and two ninths are what?

10. Seven ninths less one third is what?

11. Eight ninths less two thirds is what?

12. One third less one ninth is what?

DICTATION EXERCISE

Draw a circle; divide it into three equal parts; in each part write its name in figures.

Draw a circle; divide it into nine equal parts; in each part write its name in figures.

$\frac{1}{3}+\frac{1}{9}=?$
$\frac{1}{3}+\frac{2}{9}=?$
$\frac{1}{3}-\frac{1}{9}=?$
$\frac{1}{3}-\frac{2}{9}=?$
$\frac{2}{3}-\frac{1}{9}=?$
$\frac{2}{3}-\frac{2}{9}=?$

$\frac{2}{3}+\frac{1}{9}=?$
$\frac{2}{3}+\frac{2}{9}=?$
$\frac{4}{9}-\frac{1}{3}=?$
$\frac{5}{9}-\frac{1}{3}=?$
$\frac{7}{9}-\frac{1}{3}=?$
$\frac{8}{9}-\frac{1}{3}=?$

$\frac{8}{9}-\frac{5}{9}=?$
$\frac{7}{9}-\frac{4}{9}=?$
$\frac{4}{9}-\frac{1}{9}=?$
$\frac{5}{9}-\frac{2}{9}=?$
$\frac{1}{3}=\frac{?}{9}$.
$\frac{2}{3}=\frac{?}{9}$.

36. 1. Add 2's to 20.

Finding the sum of two or more equal numbers is called MULTIPLICATION.

The sign of multiplication is ×, *and is read* TIMES *or* MULTIPLIED BY.

2. How many are 4 × 2? 8 × 2? 6 × 2? 9 × 2? 3 × 2? 10 × 2? 5 × 2? 7 × 2? 2 × 2?

3. How many 2's are there in 20? in 6? in 10? in 4? in 14? in 18? in 12? in 16? in 8?

Finding how many times one number is contained in another is called DIVISION.

The sign of division is ÷, *and is read* DIVIDED BY.

4. $20 \div 2=?$ $6 \div 2=?$ $10 \div 2=?$ $4 \div 2=?$ $8 \div 2=?$
$14 \div 2=?$ $18 \div 2=?$ $12 \div 2=?$ $16 \div 2=?$ $2 \div 2=?$

5. 2 is what part of 4? of 18? of 12? of 6? of 14? of 8? of 16? of 10? of 20?

6. 2 is $\frac{1}{2}$ of what number? $\frac{1}{4}$? $\frac{1}{8}$? $\frac{1}{6}$? $\frac{1}{9}$? $\frac{1}{3}$? $\frac{1}{7}$? $\frac{1}{10}$? $\frac{1}{5}$?

7. What two equal numbers make 6? What is $\frac{1}{2}$ of 6?

8. What two equal numbers make 18? What is $\frac{1}{2}$ of 18?

9. What two equal numbers make 8? What is $\frac{1}{2}$ of 8?

10. What two equal numbers make 16? What is $\frac{1}{2}$ of 16?

11. What two equal numbers make 4? What is $\frac{1}{2}$ of 4?

12. What two equal numbers make 10? What is $\frac{1}{2}$ of 10?

13. What two equal numbers make 20? What is $\frac{1}{2}$ of 20?

14. What two equal numbers make 12? What is $\frac{1}{2}$ of 12?

15. What two equal numbers make 14? What is $\frac{1}{2}$ of 14?

16. What two equal numbers make 2? What is $\frac{1}{2}$ of 2?

17. $2 \times 4 = ?$ $2 \times 1 = ?$ $2 \times 3 = ?$ $2 \times 8 = ?$ $2 \times 9 = ?$
$2 \times 6 = ?$ $2 \times 10 = ?$ $2 \times 7 = ?$ $2 \times 2 = ?$ $2 \times 5 = ?$

18. 2 is $\frac{1}{2}$ of what number? 1? 3? 8? 5? 9? 6? 10? 7? 4?

PINT.

QUART.

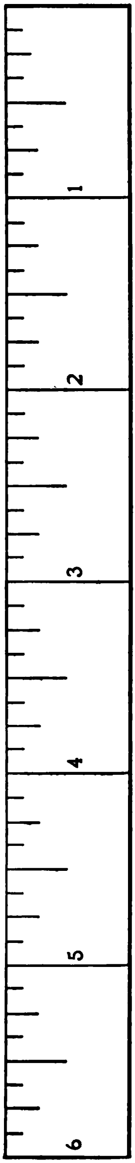
19. How many pints are equal to one quart?

20. A pint is what part of a quart?

21. How many pints are there in 6 qts.? in 10 qts.? in 7 qts.? in 3 qts.? in 9 qts.? in 4 qts.? in 8 qts.? in 2 qts.? in 5 qts.?

22. 16 pts. are how many quarts? 20 pts.? 8 pts.? 12 pts.? 18 pts.? 4 pts.? 10 pts.? 14 pts.? 6 pts.? 2 pts.?

23. 5 pts. are how many quarts? 7 pts.? 3 pts.? 9 pts.? 13 pts.? 19 pts.? 11 pts.? 17 pts.? 15 pts.?



37. 1. How many inches long is this rule?

2. How many half inches long is it?

3. Two half inches are how many inches?

4. Two inches are how many half inches?

5. Four half inches are how many inches?

6. Four inches are how many half inches?

7. Six half inches are how many inches?

8. Three inches are how many half inches?

9. Five inches are how many half inches?

10. Three half inches are how many inches?

11. Five half inches are how many inches?

12. Three inches and a half are how many half inches?

13. Four and a half inches are how many half inches?

14. Ten half inches are how many inches?

15. Eight half inches are how many inches?

16. Two and a half inches are how many half inches?

17. One and a half inches are how many half inches?

18. Twelve half inches are how many inches?

19. Seven half inches are how many inches?

20. Five and a half inches are how many half inches?

21. Nine half inches are how many inches?

22. Eleven half inches are how many inches?

38. One and one half is written $1\frac{1}{2}$. In. stands for inch or inches.

1. Read these expressions:

$1\frac{1}{2}$ in.; $2\frac{1}{2}$ in.; 6 in.; $5\frac{1}{2}$ in.; $\frac{6}{2}$ in.

2. $\frac{2}{2}$ equal how many wholes?
3. 2 wholes equal how many halves?
4. $2\frac{1}{2}$ equal how many halves?
5. $\frac{8}{2}$ equal how many wholes?
6. $5\frac{1}{2} = ?$
7. $1\frac{1}{2} = ?$
8. $4\frac{1}{2} = ?$
9. $3\frac{1}{2} = ?$
10. $\frac{3}{2} = ?$
11. $\frac{11}{2} = ?$
12. $\frac{7}{2} = ?$
13. $\frac{5}{2} = ?$
14. $\frac{10}{2} = ?$
15. $\frac{9}{2} = ?$
16. $\frac{6}{2} = ?$
17. $\frac{4}{2} = ?$
18. $\frac{12}{2} = ?$
19. $\frac{2}{2} = ?$
20. How many half dollars are 3 dollars equal to?
21. How many whole apples are 10 half apples equal to?
22. Nine half hours are how many hours?
23. Two barrels and a half are how many half barrels?
24. 12 half bushels are equal to how many bushels?
25. Five pints are how many half pints?

39. 1. How many half-inch sticks must you lay to make a line 7 inches long?

2. 16 half-inch sticks will make how long a line?
3. 13 half dollars are how many dollars?
4. 19 half bushels are how many bushels?
5. $7\frac{1}{2}$ pecks are how many half pecks?
6. 18 half hours are how many hours?
7. 15 half pints are how many pints?

8. 8 inches are how many half inches?

9. 20 half pecks are how many pecks?

10. $9\frac{1}{2}$ miles are how many half miles?

11. 10 inches are how many half inches?

12. $6\frac{1}{2}$ yards of cloth will cut into how many half-yard pieces?

13. 17 half barrels equal how many barrels?

14. 9 gallons will fill how many half-gallon measures?

15. 14 half hours equal how many hours?

16. $8\frac{1}{2}$ quarts will fill how many pint measures?

17. $7\frac{1}{2}=?$
18. $9\frac{1}{2}=?$
19. $8\frac{1}{2}=?$
20. $6\frac{1}{2}=?$
21. $\frac{13}{2}=?$
22. $\frac{19}{2}=?$
23. $\frac{16}{2}=?$
24. $\frac{14}{2}=?$
25. $\frac{17}{2}=?$
26. $\frac{18}{2}=?$
27. $\frac{15}{2}=?$
28. $\frac{20}{2}=?$

40. 1. If one book costs half a dollar, what is the cost of 6 books?

2. If a family uses half a peck of potatoes in a week, how many pecks does it use in 5 weeks?

3. If a family burns half a ton of coal a month, how many tons does it burn in 3 months?

4. If a family uses half a gallon of milk a day, how many gallons does it use in 10 days?

5. If a family uses half a barrel of flour in a month, how many barrels does it use in 7 months?

6. If it takes Mary half an hour to crochet a scallop, how long will it take her to crochet 2 scallops?

7. If it takes half a yard of cloth to make a cap, how many yards will it take to make 8 caps?

8. If a family uses half a dozen of eggs a day, how many dozen does it use in 9 days?

9. If it takes half a pound of butter to make a cake, how many pounds will it take to make 4 cakes?

10. $5 \times \frac{1}{2}$ = how many halves? how many wholes?
11. $10 \times \frac{1}{2}$ = how many halves? how many wholes?
12. $2 \times \frac{1}{2}$ = how many halves? how many wholes?
13. $4 \times \frac{1}{2}$ = how many halves? how many wholes?
14. $7 \times \frac{1}{2}$ = how many halves? how many wholes?
15. $9 \times \frac{1}{2}$ = how many halves? how many wholes?
16. $3 \times \frac{1}{2}$ = how many halves? how many wholes?
17. $8 \times \frac{1}{2}$ = how many halves? how many wholes?
18. $6 \times \frac{1}{2}$ = how many halves? how many wholes?

41. 1. Add 3's to 30.

2. How many are 5×3? 8×3? 10×3? 2×3? 6×3? 9×3? 4×3? 7×3? 3×3?

3. How many 3's are there in 21? in 9? in 18? in 27? in 15? in 30? in 6? in 24? in 12?

4. 3 is what part of 15? of 30? of 6? of 12? of 21? of 9? of 18? of 27? of 24?

5. 3 is $\frac{1}{3}$ of what number? $\frac{1}{8}$? $\frac{1}{4}$? $\frac{1}{10}$? $\frac{1}{9}$? $\frac{1}{6}$? $\frac{1}{2}$? $\frac{1}{7}$? $\frac{1}{9}$? $\frac{1}{5}$?

6. What 3 equal numbers make 6? 9? 12? 15? 18? 21? 24? 27? 30?

7. What is $\frac{1}{3}$ of 21? of 18? of 6? of 9? of 27? of 30? of 12? of 24? of 15? of 3?

8. 2 is $\frac{1}{3}$ of what number? 8? 3? 5? 9? 4? 7? 6? 10? 1?

9. How many feet long is a yardstick?

10. A foot is what part of a yard?

11. How many feet are there in 7 yards? in 9 yards? in 3 yards? in 6 yards? in 10 yards? in 4 yards? in 8 yards? in 5 yards? in 2 yards?

12. 9 feet are how many yards? 18 feet? 24 feet? 6 feet? 30 feet? 21 feet? 15 feet? 27 feet? 12 feet?

13. 16 feet are how many yards and how many feet? 5 feet? 11 feet? 23 feet? 14 feet? 20 feet? 26 feet? 8 feet? 19 feet?

14. 13 feet are how many yards and how many feet? 10 feet? 29 feet? 17 feet? 22 feet? 7 feet? 28 feet? 4 feet? 25 feet?

15. What two numbers multiplied together make 6? 14? 15?

2 *and* 3 *are* FACTORS *of* 6. 2 *and* 7 *are* FACTORS *of* 14. 3 *and* 5 *are* FACTORS *of* 15.

6 *is a* MULTIPLE *of* 2 *and of* 3. 14 *is a* MULTIPLE *of* 2 *and of* 7.

16. What are the multiples of 2 from 2 to 20?

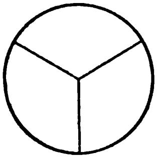
17. What are the multiples of 3 from 3 to 30?

18. What are the factors of 4? of 6? of 8? of 9? of 10? of 12? of 14? of 15?

19. What are the factors of 18? of 20? of 21? of 24? of 27? of 30?

20. What numbers are multiples of both 2 and 3?

42.



1. If you cut 10 paper circles and cut each one into thirds, how many pieces of paper would you have?

2. Each piece is what part of a circle?

3. Two of the pieces are what part of a circle?

4. How many of the pieces would it take to lay 5 circles? 8 circles? 3 circles? 10 circles? 7 circles? 2 circles? 9 circles? 4 circles?

5. How many circles can you lay with 6 pieces? 12 pieces? 18 pieces? 21 pieces? 9 pieces? 30 pieces? 24 pieces? 15 pieces? 27 pieces?

6. How many circles and what part of the next one can you lay with 7 pieces? 10 pieces? 22 pieces? 19 pieces? 25 pieces? 16 pieces? 28 pieces? 13 pieces? 4 pieces?

7. How many circles and what part of the next can you lay with 26 pieces? 17 pieces? 14 pieces? 8 pieces? 29 pieces? 11 pieces? 20 pieces? 23 pieces? 5 pieces?

8. How many thirds are there in one whole? in 4 wholes? in $4\frac{1}{3}$?

9. $8\frac{2}{3} = ?$ $6\frac{1}{3} = ?$ $7\frac{1}{3} = ?$

10. $3\frac{2}{3} = ?$ $7\frac{2}{3} = ?$ $1\frac{1}{3} = ?$

11. $9\frac{2}{3} = ?$ $8\frac{1}{3} = ?$ $4\frac{2}{3} = ?$

12. $2\frac{2}{3} = ?$ $4\frac{1}{3} = ?$ $3\frac{1}{3} = ?$

13. $1\frac{2}{3} = ?$ $9\frac{1}{3} = ?$ $6\frac{2}{3} = ?$

14. $2\frac{1}{3} = ?$ $5\frac{2}{3} = ?$ $5\frac{1}{3} = ?$

15. $\frac{13}{3} = ?$ $\frac{16}{3} = ?$ $\frac{22}{3} = ?$

16. $\frac{19}{3} = ?$ $\frac{25}{3} = ?$ $\frac{7}{3} = ?$

17. $\frac{10}{3} = ?$ $\frac{4}{3} = ?$ $\frac{28}{3} = ?$

18. $\frac{26}{3} = ?$ $\frac{29}{3} = ?$ $\frac{14}{3} = ?$

19. $\frac{5}{3} = ?$ $\frac{20}{3} = ?$ $\frac{23}{3} = ?$

20. $\frac{17}{3} = ?$ $\frac{8}{3} = ?$ $\frac{11}{3} = ?$

21. $4 \times \frac{2}{3} = ?$ $9 \times \frac{2}{3} = ?$ $7 \times \frac{2}{3} = ?$

22. $6 \times \frac{2}{3} = ?$ $2 \times \frac{2}{3} = ?$ $8 \times \frac{2}{3} = ?$

23. $10 \times \frac{2}{3} = ?$ $3 \times \frac{2}{3} = ?$ $5 \times \frac{2}{3} = ?$

24. If a family burns $\frac{2}{3}$ of a ton of coal a month, how much does it burn in 7 months? in 2 months? in 5? in 6? in 9? in 4? in 10? in 8? in 3?

43. 1. Add 4's to 40.

2. How many are 7 × 4? 3 × 4? 2 × 4? 6 × 4? 8 × 4? 5 × 4? 10 × 4? 9 × 4?

3. $8 \div 4 = ?$ $12 \div 4 = ?$ $20 \div 4 = ?$ $32 \div 4 = ?$ $16 \div 4 = ?$
$28 \div 4 = ?$ $40 \div 4 = ?$ $4 \div 4 = ?$ $36 \div 4 = ?$ $24 \div 4 = ?$

4. 4 is what part of 8? of 20? of 32? of 40? of 28? of 36? of 16? of 24? of 12?

5. 4 is $\frac{1}{2}$ of what number? $\frac{1}{8}$? $\frac{1}{3}$? $\frac{1}{6}$? $\frac{1}{5}$? $\frac{1}{9}$? $\frac{1}{4}$? $\frac{1}{10}$? $\frac{1}{7}$?

6. What 4 equal numbers make 8? 20? 16? 24? 32? 40? 36? 12? 28? 4?

7. $4 \times 2 = ?$ $4 \times 5 = ?$ $4 \times 8 = ?$ $4 \times 9 = ?$ $4 \times 10 = ?$
$4 \times 1 = ?$ $4 \times 3 = ?$ $4 \times 7 = ?$ $4 \times 6 = ?$ $4 \times 4 = ?$

8. What is $\frac{1}{4}$ of 20? of 12? of 28? of 24? of 36? of 32? of 40? of 8? of 16? of 4?

9. How many quarts are there in a gallon?

10. A quart is what part of a gallon?

11. 2 gallons are how many quarts? 7 gallons? 3 gallons? 9 gallons? 8 gallons? 5 gallons? 10 gallons? 6 gallons? 4 gallons?

12. 32 quarts are how many gallons? 16 quarts? 28 quarts? 12 quarts? 20 quarts? 36 quarts? 24 quarts? 8 quarts? 40 quarts?

13. 25 quarts are how many gallons and how many quarts? 17 quarts? 13 quarts? 9 quarts? 29 quarts? 33 quarts? 21 quarts? 37 quarts?

14. 10 quarts are how many gallons and how many quarts? 14 quarts? 39 quarts? 26 quarts? 35 quarts? 30 quarts? 19 quarts? 23 quarts?

15. 38 quarts are how many gallons and how many quarts? 11 quarts? 27 quarts? 34 quarts? 31 quarts? 18 quarts? 22 quarts? 15 quarts?

16. A half gallon is how many quarts?

17. What are the factors of 16? of 28? of 32? of 36?

18. What numbers are multiples of both 3 and 4?

44. 1. How many fourths are there in 1 inch? in 3 inches? in 9 inches? in 6 inches? in 5 inches? in 8 inches? in 7 inches? in 10 inches? in 4 inches? in 2 inches?

2. How many fourths are there in $1\frac{1}{4}$ inches? in $3\frac{1}{4}$ inches? in $6\frac{1}{4}$ inches? in $7\frac{1}{4}$ inches? in $9\frac{1}{4}$ inches? in $10\frac{1}{4}$ inches? in $4\frac{1}{4}$ inches? in $8\frac{1}{4}$ inches? in $2\frac{1}{4}$ inches? in $5\frac{1}{4}$ inches?

3. How many fourths are there in $5\frac{3}{4}$ inches? in $2\frac{3}{4}$ inches? in $8\frac{3}{4}$ inches? in $10\frac{3}{4}$ inches? in $9\frac{3}{4}$ inches? in $7\frac{3}{4}$ inches? in $6\frac{3}{4}$ inches? in $3\frac{3}{4}$ inches? in $1\frac{3}{4}$ inches? in $4\frac{3}{4}$ inches?

4. $\frac{5}{4} = ?$
5. $\frac{7}{4} = ?$
6. $\frac{13}{4} = ?$
7. $\frac{15}{4} = ?$
8. $\frac{25}{4} = ?$
9. $\frac{11}{4} = ?$
10. $\frac{23}{4} = ?$
11. $\frac{29}{4} = ?$
12. $\frac{35}{4} = ?$
13. $\frac{43}{4} = ?$
14. $\frac{9}{4} = ?$
15. $\frac{21}{4} = ?$
16. $\frac{41}{4} = ?$
17. $\frac{39}{4} = ?$
18. $\frac{17}{4} = ?$
19. $\frac{33}{4} = ?$
20. $\frac{37}{4} = ?$
21. $\frac{31}{4} = ?$
22. $\frac{19}{4} = ?$
23. $\frac{27}{4} = ?$

45. 1. $3 \times \frac{3}{4} =$ how many fourths? how many wholes?

2. $10 \times \frac{3}{4} =$ how many fourths? how many wholes?

3. $4 \times \frac{3}{4} =$ how many fourths? how many wholes?

4. $2 \times \frac{3}{4} =$ how many fourths? how many wholes?

5. $7 \times \frac{3}{4} =$ how many fourths? how many wholes?

6. $9 \times \frac{3}{4} =$ how many fourths? how many wholes?

7. $6 \times \frac{3}{4} =$ how many fourths? how many wholes?

8. $8 \times \frac{3}{4} =$ how many fourths? how many wholes?

9. $5 \times \frac{3}{4} =$ how many fourths? how many wholes?

10. If a book costs $\frac{3}{4}$ of a dollar, what will 3 books cost?

11. If a box weighs $\frac{3}{4}$ of a pound, what will 8 such boxes weigh?

12. If a bin holds $\frac{3}{4}$ of a ton of coal, how many tons will it take to fill it 4 times?

13. John reads $\frac{3}{4}$ of an hour a day; how many hours does he read in 9 days?

14. George walks $\frac{3}{4}$ of a mile every morning; how far does he walk in 10 mornings?

15. A storekeeper sold $\frac{3}{4}$ of a bushel of potatoes to each of 2 men; how much did he sell to both?

16. A man gave $\frac{3}{4}$ of a dollar to each of his 5 children; how much did he give to all?

17. A boy earns $\frac{3}{4}$ of a dollar a day; how much does he earn in 6 days?

18. If a family uses $\frac{3}{4}$ of a pound of butter a day, how many pounds does it use in 7 days?

19. Divide these numbers by 2:

18, 12, 4, 10, 20, 8, 16, 2, 14, 6.

20. Add 1 to each of the same numbers and divide by 2.

21. Divide these numbers by 3:

15, 12, 9, 21, 30, 18, 24, 6, 27, 3.

22. Add 2 to each of the same numbers and divide by 3.

23. Divide these numbers by 4:

16, 4, 20, 40, 32, 24, 12, 28, 8, 36.

24. Add 2 to each number and divide by 4.

25. Add 3 to each number and divide by 4.

SECTION IV

WRITTEN EXERCISES

46. 1. Add:

$$\begin{array}{r}232\\232\\232\\\underline{232}\end{array}\qquad\qquad\begin{array}{r}494\\\underline{494}\end{array}\qquad\qquad\begin{array}{r}306\\306\\\underline{306}\end{array}$$

2. How many are 4 × 232?

3. How many are 2 × 494?

4. How many are 3 × 306?

5. Finding the sum of equal numbers is called what?

6. What is the sum of three zeros or ciphers?

7. $3 \times 0 = ?$ $\qquad 2 \times 0 = ?$ $\qquad 4 \times 0 = ?$

$$\begin{array}{r}232\\\underline{\times 4}\\928\end{array}\qquad\qquad\begin{array}{r}494\\\underline{\times 2}\\988\end{array}\qquad\qquad\begin{array}{r}306\\\underline{\times 3}\\918\end{array}$$

4 times 2 units are 8 units; 4 times 3 tens are 12 tens, which equals 1 hundred and 2 tens; 4 times 2 hundreds are 8 hundreds, and 1 hundred are 9 hundreds. Answer 928.

NOTE: As soon as the process is understood, examples may be performed without naming the places.

2 times 4 are 8; 2 times 9 are 18; 2 times 4 are 8 and 1 are 9. Answer 988.

8. Multiply:

$$\begin{array}{r}23\\\underline{\times 2}\end{array}\quad\begin{array}{r}23\\\underline{\times 3}\end{array}\quad\begin{array}{r}23\\\underline{\times 4}\end{array}\quad\begin{array}{r}23\\\underline{\times 5}\end{array}\quad\begin{array}{r}23\\\underline{\times 6}\end{array}\quad\begin{array}{r}23\\\underline{\times 7}\end{array}\quad\begin{array}{r}23\\\underline{\times 8}\end{array}\quad\begin{array}{r}23\\\underline{\times 9}\end{array}$$

9. **Multiply:**

32	32	32	32	32	32	32	32
× 2	× 3	× 4	× 5	× 6	× 7	× 8	× 9

10. **Multiply:**

34	34	34	34	34	34	34	34
× 2	× 3	× 4	× 5	× 6	× 7	× 8	× 9

11. **Multiply:**

42	42	42	42	42	42	42	42
× 2	× 3	× 4	× 5	× 6	× 7	× 8	× 9

12. **Multiply:**

24	24	24	24	24	24	24	24
× 2	× 3	× 4	× 5	× 6	× 7	× 8	× 9

13. **Multiply:**

432	342	423	403	302
× 2	× 2	× 2	× 2	× 2

14. **Multiply:**

301	304	202	204	243
× 3	× 3	× 3	× 4	× 4

15. **Multiply:**

234	203	143	134	124
× 4	× 4	× 5	× 5	× 6

16. **Multiply:**

143	132	104	103	102
× 6	× 7	× 7	× 8	× 9

47. 1. How much work can a man do in 2 hours compared with what he can do in 1 hour? How much can he do in 4 hours? in 3 hours?

2. How many miles does a railroad train go in 2 hours compared with what it can go in 1 hour? How far can it go in 4 hours?

3. How do you find 3 times a number? 4 times a number? 2 times a number?

4. How do you find 4 × 36?

36, the number to be multiplied, is called the MULTIPLICAND. 4 is the MULTIPLIER. It shows how many times the multiplicand is taken. The answer in multiplication is the PRODUCT.

5. Find 4 times 36 men.

$$\begin{array}{rl} 36 & \text{men} \\ \times 4 & \\ \hline & \text{men} \end{array}$$

6. Find 36 times 4 men.

$$\begin{array}{rl} 36 & \\ \times 4 & \text{men} \\ \hline & \text{men} \end{array}$$

NOTE: As the product of any two numbers is the same, whichever one is used as a multiplier, we may multiply by the smaller one when it is easier, but the real multiplicand should be marked.

7. How far would a railroad train traveling 46 miles an hour go in 3 hours?

$$\begin{array}{rl} 46 & \text{miles in 1 hour} \\ \times 3 & \\ \hline & \text{miles in 3 hours} \end{array}$$

8. If $\frac{1}{4}$ of a man's money is 200 dollars, how much money has he?

9. A man has 396 dollars in each of two banks; how many dollars has he in both banks?

10. How many books would be needed to supply each of 3 rooms with 245 books?

11. 75 is ½ of what number?

12. 87 is ⅓ of what number?

13. 96 is ¼ of what number?

14. The whole of anything is how many times ½ of it?

15. The whole of anything is how many times ⅓ of it?

16. The whole of anything is how many times ¼ of it?

17. 385 quarts are how many pints?

18. 176 gallons are how many quarts?

19. 235 yards are how many feet?

20. How many half inches are in 234 inches?

21. How many quarter inches are in 98 inches?

22. 239 bushels are how many pecks?

23. 24 pecks are how many quarts?

24. If a man earns 125 dollars a month, how much does he earn in 4 months?

48. 1. 8 ÷ 2 = ? 16 ÷ 2 = ? 20 ÷ 2 = ?
½ of 8 = ? ½ of 16 = ? ½ of 20 = ?

●● ●● ●● ●● 8 ÷ 2 = 4
●●●● ●●●● ½ of 8 = 4

2 apples are contained in 8 apples 4 *times.* ½ of 8 apples is 4 *apples.*

By DIVISION *we find how many times one number is contained in another, and also ½, ⅓, ¼, etc., of numbers. These last are called* FRACTIONAL PARTS.

The number divided is called the DIVIDEND, *the number we divide by is called the* DIVISOR.

The answer is the QUOTIENT.

2 apples)8 apples
4 times

2)8 apples
4 apples

2. In the first of these two examples, what is the dividend? the divisor? the quotient?

3. Which of them finds how many times one number is contained in another, and which finds a fractional part?

2)20 may mean either, How many 2's are there in 20? or, What is $\frac{1}{2}$ of 20?

2 apples)20 apples means, How many times is 2 apples contained in 20 apples?

2)20 apples means, What is $\frac{1}{2}$ of 20 apples?

4. What does each of these forms mean?

2 ft.)18 ft. 2)26 ft. 2)28

5. What does each of these forms mean?

3 ft.)15 ft. 3)27 qts. 3)24

6. What does each of these forms mean?

4 bu.)24 bu. 4)36 pts. 4)32

Dividing larger numbers:

2)462
231

2 goes in 4, 2 times; 2 in 6, 3 times; 2 in 2, once. Answer 231.

2)576
288

2 goes in 5, 2 times and 1 remainder; 2 in 17, 8 times and 1 remainder; 2 in 16, 8 times. Answer 288.

7. How many 2's are there in 462? in 576?

8. What is $\frac{1}{2}$ of 462? of 576?

9. If a boy steps 2 feet at each step, how many steps must he take to walk 462 feet? to walk 576 feet?

10. How far must a man ride each week to ride 462 miles in 2 weeks? to ride 576 miles in 2 weeks?

11. In which of questions 9 and 10 do you find how many times 2 is contained in the numbers?

12. In which do you find $\frac{1}{2}$ of the numbers?

13. How many 2's in 3? in 5?

14. What is $\frac{1}{2}$ of 3? of 5?

$2\overline{)395}$ 2 goes in 395, 197 times and 1 remainder;
197, 1 rem. or it goes $197\frac{1}{2}$ times.

$2\overline{)395}$
$197\frac{1}{2}$ $\frac{1}{2}$ of 395 is $197\frac{1}{2}$.

NOTE: If we find how many times one number is contained in another, we may write the answer in either of these two ways if it does not go an exact number of times. But if we find a fractional part, there can be no remainder; the fraction must be made a part of the quotient.

15. How do we find how many 2's there are in a number? 3's? 4's?

16. How do we find $\frac{1}{2}$ of a number? $\frac{1}{3}$? $\frac{1}{4}$?

17. How many times are 2 feet contained in 96 feet?

18. How many times are 3 inches contained in 234 inches?

19. How many times are 3 miles contained in 486 miles?

20. How many times are 4 bushels contained in 984 bushels?

21. How many times are 4 acres contained in 864 acres?

22. How many 2-foot sticks can be cut from a stick 48 feet long?

23. How many gallon measures can be filled from a tub which holds 96 quarts?

24. How many yards long is a hall which is 723 feet long?

25. A fence is 864 feet long, not including the gate which is in the middle; how many feet of fence are on each side of the gate?

49. 1. Write in figures:

Four hundred three.
Six hundred seventeen.
Nine hundred one.
Eight hundred forty.
Three hundred.
Nine hundred sixty-four.
Seven hundred ten.
Two hundred eleven.
Seventy-five.
Eight hundred eighty-eight.

2. How many feet long is a hall which is 233 yards long?

3. How many 2-dollar hats can be bought for 196 dollars?

4. 987 dollars were divided equally among 3 persons; what did each receive?

5. How many quarts does a hogshead hold which contains 63 gallons?

6. In one schoolroom are 49 children, in another 38, in another 51, in another 48, in another 42, in another 47, and in another 39; how many children are in all the rooms?

7. A man who had 900 sheep sold 437 of them; how many sheep had he left?

8. $406-293=?$ $711-126=?$ $800-263=?$
$510-127=?$ $507-379=?$ $842-609=?$

9. $24\times2=?$ $32\times3=?$ $42\times4=?$
$35\times2=?$ $54\times3=?$ $53\times4=?$
$67\times2=?$ $76\times3=?$ $86\times4=?$
$98\times2=?$ $89\times3=?$ $79\times4=?$

10. 312 ÷ 2 = ?
508 ÷ 2 = ?
997 ÷ 2 = ?
756 ÷ 2 = ?
146 ÷ 2 = ?
418 ÷ 2 = ?
132 ÷ 2 = ?
978 ÷ 2 = ?

50. 1. Write in figures:

Seven hundred nine.
Forty-five.
Eight hundred seventy-two.
Three hundred one.
Two hundred eleven.
Four hundred.
Three hundred thirty-three.
One hundred eleven.
Five hundred seventy.
Eighty-eight.

2. Write in words: 401, 654, 200, 666, 111, 999.

3. How many yards long is a stone wall which is 642 feet long?

4. How many feet of fence are needed to inclose a square field 90 feet on each side?

5. How many feet of fence are needed to inclose a rectangular field which is 80 feet long and 60 feet wide?

6. How many panes of glass are required for a house which has 9 windows on the first floor, 11 windows on the second floor, and 7 windows on the third floor, each window containing 4 panes?

7. In one school building are 704 children, in another 487; how many more children are in one building than in the other?

8. 49 + 63 + 82 + 75 + 48 + 33 + 79 = ?

9. 594 ÷ 3 = ?
837 ÷ 3 = ?
111 ÷ 3 = ?
176 ÷ 3 = ?
145 ÷ 3 = ?
202 ÷ 3 = ?
288 ÷ 3 = ?
456 ÷ 3 = ?
730 ÷ 3 = ?
312 ÷ 3 = ?
962 ÷ 3 = ?
879 ÷ 3 = ?

10. 796 ÷ 4 = ?
317 ÷ 4 = ?
352 ÷ 4 = ?
238 ÷ 4 = ?
274 ÷ 4 = ?
153 ÷ 4 = ?
190 ÷ 4 = ?
664 ÷ 4 = ?
209 ÷ 4 = ?
148 ÷ 4 = ?
105 ÷ 4 = ?
511 ÷ 4 = ?
182 ÷ 4 = ?
211 ÷ 4 = ?
972 ÷ 4 = ?
536 ÷ 4 = ?
841 ÷ 4 = ?
303 ÷ 4 = ?

SECTION V

ORAL EXERCISES

51. 1. Add 5's to 50.

2. How many are

4 × 5?   2 × 5?   9 × 5?   8 × 5?   3 × 5?
10 × 5?   7 × 5?   5 × 5?   6 × 5?

3. $10 \div 5 = ?$ $20 \div 5 = ?$ $40 \div 5 = ?$ $30 \div 5 = ?$ $50 \div 5 = ?$
$25 \div 5 = ?$ $15 \div 5 = ?$ $35 \div 5 = ?$ $5 \div 5 = ?$ $45 \div 5 = ?$

4. 5 is what part of 10? of 25? of 30? of 50? of 35? of 15? of 45? of 40?

5. 5 is $\frac{1}{3}$ of what number? $\frac{1}{5}$? $\frac{1}{8}$? $\frac{1}{2}$? $\frac{1}{9}$? $\frac{1}{7}$? $\frac{1}{10}$? $\frac{1}{6}$? $\frac{1}{4}$?

6. $5 \times 2 = ?$ $5 \times 9 = ?$ $5 \times 8 = ?$ $5 \times 10 = ?$ $5 \times 7 = ?$
$5 \times 3 = ?$ $5 \times 4 = ?$ $5 \times 6 = ?$ $5 \times 5 = ?$ $5 \times 1 = ?$

7. What is $\frac{1}{5}$ of 20? of 15? of 30? of 40? of 10? of 25? of 35? of 50? of 45? of 5?

8. Add 6's to 60.

9. How many are

5 × 6?   2 × 6?   7 × 6?   6 × 6?   3 × 6?
10 × 6?   9 × 6?   4 × 6?   8 × 6?

10. $12 \div 6 = ?$ $6 \div 6 = ?$ $24 \div 6 = ?$ $30 \div 6 = ?$ $60 \div 6 = ?$
$36 \div 6 = ?$ $48 \div 6 = ?$ $42 \div 6 = ?$ $54 \div 6 = ?$ $18 \div 6 = ?$

11. 6 is what part of 12? of 24? of 18? of 36? of 30? of 60? of 48? of 54? of 42?

12. 6 is $\frac{1}{3}$ of what number? $\frac{1}{4}$? $\frac{1}{8}$? $\frac{1}{9}$? $\frac{1}{2}$? $\frac{1}{6}$? $\frac{1}{10}$? $\frac{1}{5}$? $\frac{1}{7}$?

13. $6 \times 2 = ?$ $6 \times 5 = ?$ $6 \times 8 = ?$ $6 \times 4 = ?$ $6 \times 7 = ?$
$6 \times 10 = ?$ $6 \times 6 = ?$ $6 \times 3 = ?$ $6 \times 9 = ?$ $6 \times 1 = ?$

14. What is $\frac{1}{6}$ of 12? of 24? of 18? of 30? of 48? of 60? of 42? of 54? of 36? of 6?

15. Add any number from 1 to 4 to each of these numbers and divide by 5:
45, 5, 30, 50, 35, 15, 25, 40, 10, 20.

16. Add any number from 1 to 5 to each of these numbers and divide by 6:
42, 12, 24, 6, 30, 48, 18, 60, 36, 54.

17. At the rate of 5 miles an hour, how far would a horse travel in 8 hours?

18. How many scallops can Mary knit in 7 hours if she knits 6 scallops each hour?

19. Carrie bought 7 pencils at 5 cents each, and 8 pads at 6 cents each; what did she pay for all?

20. John traveled 9 hours at the rate of 6 miles an hour, and Henry traveled 8 hours at the rate of 5 miles an hour; how much farther did John travel than Henry?

21. If John and Henry started at the same place and went in opposite directions, how far apart were they at the end of their journeys?

22. At 5 dollars each, how many chairs can be bought for 45 dollars?

23. At the rate of 6 miles an hour, how many hours would it take to travel 24 miles?

24. Walter had 30 marbles and gave $\frac{1}{5}$ of them to Robert; how many marbles did he give to Robert? How many did he keep? What part of his marbles did he keep?

25. A man has 42 books; $\frac{1}{6}$ of them are in his bedroom and the rest of them are in his sitting room. How many books are in his bedroom? What part of his books are in his sitting room?

52. 1. How many fifths are in the whole of anything? in 3 wholes? in 9 wholes? in 8 wholes? in 7 wholes? in 2 wholes? in 6 wholes? in 4 wholes? in 10 wholes? in 5 wholes?

2. Ten fifths are equal to how many wholes? fifteen fifths? fifty fifths? thirty fifths? twenty fifths? forty fifths? thirty-five fifths? twenty-five fifths? forty-five fifths?

3. $7 \times \frac{3}{5} = ?$
$2 \times \frac{3}{5} = ?$
$8 \times \frac{3}{5} = ?$
$9 \times \frac{3}{5} = ?$
$6 \times \frac{3}{5} = ?$
$4 \times \frac{3}{5} = ?$
$5 \times \frac{3}{5} = ?$
$3 \times \frac{3}{5} = ?$
$10 \times \frac{3}{5} = ?$

4. $4 \times \frac{2}{5} = ?$
$3 \times \frac{2}{5} = ?$
$7 \times \frac{2}{5} = ?$
$9 \times \frac{2}{5} = ?$
$10 \times \frac{2}{5} = ?$
$5 \times \frac{2}{5} = ?$
$8 \times \frac{2}{5} = ?$
$6 \times \frac{2}{5} = ?$
$2 \times \frac{2}{5} = ?$

5. $6 \times \frac{4}{5} = ?$
$8 \times \frac{4}{5} = ?$
$3 \times \frac{4}{5} = ?$
$5 \times \frac{4}{5} = ?$
$7 \times \frac{4}{5} = ?$
$10 \times \frac{4}{5} = ?$
$2 \times \frac{4}{5} = ?$
$9 \times \frac{4}{5} = ?$
$4 \times \frac{4}{5} = ?$

6. $8\frac{1}{5} = ?$
$3\frac{2}{5} = ?$
$9\frac{4}{5} = ?$
$6\frac{3}{5} = ?$
$5\frac{4}{5} = ?$
$7\frac{1}{5} = ?$
$2\frac{4}{5} = ?$
$4\frac{3}{5} = ?$
$10\frac{2}{5} = ?$

7. $\frac{39}{5} = ?$
$\frac{42}{5} = ?$
$\frac{49}{5} = ?$
$\frac{41}{5} = ?$
$\frac{38}{5} = ?$
$\frac{48}{5} = ?$
$\frac{37}{5} = ?$
$\frac{47}{5} = ?$
$\frac{44}{5} = ?$

8. If a family burns $\frac{3}{5}$ of a ton of coal a week, how much does it burn in 8 weeks?

9. How many sixths are in one whole? in 4 wholes? in 8 wholes? in 3 wholes? in 7 wholes? in 10 wholes? in 5 wholes? in 6 wholes? in 2 wholes? in 9 wholes?

10. Twelve sixths are equal to how many wholes? twenty-four sixths? forty-two sixths? eighteen sixths? thirty-six sixths? forty-eight sixths? sixty sixths? fifty-four sixths? thirty sixths?

11. $8 \times \frac{2}{6} = ?$ $7 \times \frac{3}{6} = ?$ $2 \times \frac{4}{6} = ?$
$3 \times \frac{3}{6} = ?$ $9 \times \frac{2}{6} = ?$ $10 \times \frac{2}{6} = ?$
$5 \times \frac{4}{6} = ?$ $4 \times \frac{4}{6} = ?$ $6 \times \frac{3}{6} = ?$

12. $8 \times \frac{5}{6} = ?$ $5 \times \frac{5}{6} = ?$ $3 \times \frac{5}{6} = ?$
$9 \times \frac{5}{6} = ?$ $7 \times \frac{5}{6} = ?$ $10 \times \frac{5}{6} = ?$
$2 \times \frac{5}{6} = ?$ $4 \times \frac{5}{6} = ?$ $6 \times \frac{5}{6} = ?$

13. $\frac{49}{6} = ?$ $\frac{52}{6} = ?$ $\frac{46}{6} = ?$
$\frac{55}{6} = ?$ $\frac{51}{6} = ?$ $\frac{57}{6} = ?$
$\frac{59}{6} = ?$ $\frac{58}{6} = ?$ $\frac{50}{6} = ?$

14. If a man walks $\frac{5}{6}$ of a mile six times a day, how far does he walk each day?

15. If a family uses $\frac{5}{6}$ of a barrel of flour a month, how much does it use in 10 months?

16. If one little cheese weighs $\frac{5}{6}$ of a pound, how much do 8 such cheeses weigh?

17. If John lives $\frac{5}{6}$ of a mile from the post office and Henry lives 5 times as far, how far from the post office does Henry live?

18. Mr. Jones has $\frac{5}{6}$ of a ton of coal, and Mr. Brown has 9 times as much; how much has Mr. Brown?

53. 1. Add 7's to 70.

2. $2 \times 7 = ?$ $4 \times 7 = ?$ $3 \times 7 = ?$ $6 \times 7 = ?$ $5 \times 7 = ?$

$8 \times 7 = ?$ $7 \times 7 = ?$ $10 \times 7 = ?$ $9 \times 7 = ?$ $1 \times 7 = ?$

3. $14 \div 7 = ?$ $7 \div 7 = ?$ $49 \div 7 = ?$ $35 \div 7 = ?$ $42 \div 7 = ?$

$63 \div 7 = ?$ $28 \div 7 = ?$ $56 \div 7 = ?$ $21 \div 7 = ?$ $70 \div 7 = ?$

4. 7 is what part of 14? of 21? of 35? of 49? of 28? of 56? of 70? of 42? of 63?

5. 7 is $\frac{1}{2}$ of what number? $\frac{1}{4}$? $\frac{1}{8}$? $\frac{1}{9}$? $\frac{1}{10}$? $\frac{1}{3}$? $\frac{1}{5}$? $\frac{1}{6}$? $\frac{1}{7}$?

6. $7 \times 2 = ?$ $7 \times 3 = ?$ $7 \times 10 = ?$ $7 \times 5 = ?$ $7 \times 6 = ?$

$7 \times 8 = ?$ $7 \times 7 = ?$ $7 \times 4 = ?$ $7 \times 6 = ?$ $7 \times 9 = ?$

7. What is $\frac{1}{7}$ of 14? of 28? of 21? of 7? of 35? of 49? of 42? of 63? of 56? of 70?

8. Add 8's to 80.

9. $2 \times 8 = ?$ $5 \times 8 = ?$ $7 \times 8 = ?$ $4 \times 8 = ?$ $9 \times 8 = ?$

$10 \times 8 = ?$ $3 \times 8 = ?$ $6 \times 8 = ?$ $8 \times 8 = ?$

10. $16 \div 8 = ?$ $40 \div 8 = ?$ $80 \div 8 = ?$ $24 \div 8 = ?$ $56 \div 8 = ?$

$48 \div 8 = ?$ $32 \div 8 = ?$ $64 \div 8 = ?$ $72 \div 8 = ?$ $8 \div 8 = ?$

11. 8 is what part of 16? of 24? of 32? of 40? of 48? of 56? of 64? of 72? of 80?

12. 8 is $\frac{1}{2}$ of what number? $\frac{1}{4}$? $\frac{1}{8}$? $\frac{1}{10}$? $\frac{1}{3}$? $\frac{1}{7}$? $\frac{1}{9}$? $\frac{1}{6}$? $\frac{1}{5}$?

13. $8 \times 2 = ?$ $8 \times 6 = ?$ $8 \times 9 = ?$ $8 \times 5 = ?$ $8 \times 3 = ?$

$8 \times 10 = ?$ $8 \times 4 = ?$ $8 \times 7 = ?$ $8 \times 8 = ?$ $8 \times 1 = ?$

14. What is $\frac{1}{8}$ of 16? of 32? of 40? of 48? of 64? of 80? of 24? of 8? of 56? of 72?

15. Add any number from 1 to 6 to each of these numbers and divide by 7:

35, 14, 28, 70, 56, 7, 21, 49, 63, 56.

16. Add any number from 1 to 7 to each of these numbers and divide by 8:

48, 16, 32, 56, 8, 80, 24, 64, 40, 72.

17. In 8 weeks are how many days?

18. In 63 days are how many weeks?

19. If a family uses 63 eggs a week, how many will be used in a day?

20. If a boy rides 8 miles an hour on his bicycle for 5 hours, how far does he travel?

21. At 8 cents each how many tops can be bought for 72 cents?

22. If a man who has 64 dollars spends $\frac{1}{8}$ of it for a book, what does the book cost?

23. Carrie bought 6 spools of thread for 7 cents each and 5 papers of needles for 8 cents each; what did she pay for all?

24. Lucy bought a set of 7 books for 56 dollars; what was the cost of each book?

54. 1. Add 9's to 90.

2. $2 \times 9 = ?$ $5 \times 9 = ?$ $8 \times 9 = ?$ $10 \times 9 = ?$ $1 \times 9 = ?$
$3 \times 9 = ?$ $7 \times 9 = ?$ $4 \times 9 = ?$ $9 \times 9 = ?$ $6 \times 9 = ?$

3. $18 \div 9 = ?$ $36 \div 9 = ?$ $27 \div 9 = ?$ $9 \div 9 = ?$ $45 \div 9 = ?$
$90 \div 9 = ?$ $63 \div 9 = ?$ $54 \div 9 = ?$ $81 \div 9 = ?$ $72 \div 9 = ?$

4. 9 is what part of 18? of 27? of 36? of 45? of 54? of 63? of 72? of 81? of 90?

5. 9 is $\frac{1}{2}$ of what number? $\frac{1}{4}$? $\frac{1}{3}$? $\frac{1}{7}$? $\frac{1}{8}$? $\frac{1}{10}$? $\frac{1}{6}$? $\frac{1}{9}$? $\frac{1}{5}$?

6. $9 \times 2 = ?$ $9 \times 4 = ?$ $9 \times 3 = ?$ $9 \times 5 = ?$ $9 \times 7 = ?$
$9 \times 6 = ?$ $9 \times 10 = ?$ $9 \times 8 = ?$ $9 \times 9 = ?$ $9 \times 1 = ?$

7. What is $\frac{1}{9}$ of 18? of 36? of 27? of 45? of 54? of 72? of 90? of 81? of 9? of 63?

8. Add any number from 1 to 8 to each of these numbers and divide by 9:

27, 45, 18, 63, 81, 9, 90, 36, 54, 72.

9. Draw a square measuring 1 inch on each side.

10. Draw a square measuring 1 foot on each side.

11. Draw a square measuring 1 yard on each side.

The first square is a SQUARE INCH; *the second is a* SQUARE FOOT; *the third is a* SQUARE YARD.

12. Divide the square yard into square feet; how many does it make?

13. How many square feet are in 7 square yards?

14. How many square inches are in a rectangle 9 inches long and 8 inches wide?

15. How many square feet are in a rectangle 9 feet long and 6 feet wide?

16. How many square yards are in the floor of a room which is 9 feet square?

17. How many square yards of oil cloth are needed to cover a floor containing 81 square feet?

18. How many square inches are in the surface of a slate which is 9 inches long and 6 inches wide?

19. How wide is a sheet of paper which contains 45 square inches, if it is 9 inches long?

20. How many square yards are in the floor of a room which is 9 yards long and 8 yards wide?

21. How many rectangles 9 inches long and 1 inch wide can be cut from a rectangle 10 inches long and 9 inches wide?

22. How wide is a room which is 10 feet long, if it contains 90 square feet?

23. How many square inches are in a rectangle which is 9 inches long and 4 inches wide?

24. How do you find the number of square inches, square feet, or square yards in a square or rectangle?

55. 1. How many sevenths are there in one whole? in three wholes? in seven wholes? in ten wholes? in two wholes? in nine wholes? in six wholes? in eight wholes? in five wholes? in seven wholes?

2. Fourteen sevenths are how many wholes? Twenty-eight sevenths? Twenty-one sevenths? Forty-two sevenths? Thirty-five sevenths? Fifty-six sevenths? Seventy sevenths? Forty-nine sevenths? Sixty-three sevenths?

3. $4 \times \frac{2}{7} = ?$ $8 \times \frac{3}{7} = ?$ $5 \times \frac{5}{7} = ?$
$3 \times \frac{5}{7} = ?$ $7 \times \frac{4}{7} = ?$ $10 \times \frac{4}{7} = ?$
$9 \times \frac{4}{7} = ?$ $2 \times \frac{2}{7} = ?$ $6 \times \frac{3}{7} = ?$

4. $2 \times \frac{6}{7} = ?$ $7 \times \frac{6}{7} = ?$ $4 \times \frac{6}{7} = ?$
$6 \times \frac{6}{7} = ?$ $3 \times \frac{6}{7} = ?$ $9 \times \frac{6}{7} = ?$
$8 \times \frac{6}{7} = ?$ $10 \times \frac{6}{7} = ?$ $5 \times \frac{6}{7} = ?$

5. $8\frac{6}{7} = ?$ $10\frac{3}{7} = ?$ $5\frac{2}{7} = ?$
$2\frac{5}{7} = ?$ $6\frac{6}{7} = ?$ $7\frac{5}{7} = ?$
$9\frac{1}{7} = ?$ $3\frac{4}{7} = ?$ $4\frac{3}{7} = ?$

6. $\frac{59}{7} = ?$ $\frac{65}{7} = ?$ $\frac{68}{7} = ?$ $\frac{51}{7} = ?$
$\frac{43}{7} = ?$ $\frac{57}{7} = ?$ $\frac{48}{7} = ?$ $\frac{46}{7} = ?$

7. How many eighths are there in one whole? in three wholes? in seven wholes? in nine wholes? in six wholes? in ten wholes? in eight wholes? in two wholes? in four wholes? in five wholes?

8. Sixteen eighths are how many wholes? Thirty-two eighths? Forty-eight eighths? Sixty-four eighths? Fifty-six eighths? Twenty-four eighths? Forty eighths? Eighty eighths? Seventy-two eighths?

9. $5 \times \frac{2}{8} = ?$ $7 \times \frac{6}{8} = ?$ $3 \times \frac{6}{8} = ?$
$6 \times \frac{5}{8} = ?$ $2 \times \frac{3}{8} = ?$ $4 \times \frac{2}{8} = ?$
$8 \times \frac{4}{8} = ?$ $9 \times \frac{4}{8} = ?$ $10 \times \frac{5}{8} = ?$

10. $5 \times \frac{7}{8} = ?$ $2 \times \frac{7}{8} = ?$ $6 \times \frac{7}{8} = ?$
$8 \times \frac{7}{8} = ?$ $7 \times \frac{7}{8} = ?$ $4 \times \frac{7}{8} = ?$
$9 \times \frac{7}{8} = ?$ $3 \times \frac{7}{8} = ?$ $10 \times \frac{7}{8} = ?$

11. $7\frac{2}{8} = ?$ $4\frac{6}{8} = ?$ $10\frac{6}{8} = ?$
$6\frac{3}{8} = ?$ $9\frac{5}{8} = ?$ $2\frac{3}{8} = ?$
$5\frac{4}{8} = ?$ $3\frac{1}{8} = ?$ $8\frac{5}{8} = ?$

12. $\frac{52}{8} = ?$ $\frac{59}{8} = ?$ $\frac{66}{8} = ?$
$\frac{38}{8} = ?$ $\frac{75}{8} = ?$ $\frac{61}{8} = ?$
$\frac{27}{8} = ?$ $\frac{45}{8} = ?$ $\frac{49}{8} = ?$

13. How many ninths are there in one whole? in seven wholes? in three wholes? in ten wholes? in six wholes? in four wholes? in nine wholes? in five wholes? in two wholes? in eight wholes?

14. Eighteen ninths are how many wholes? Thirty-six ninths? Forty-five ninths? Twenty-seven ninths? Sixty-three ninths? Eighty-one ninths? Fifty-four ninths? Seventy-two ninths? Ninety ninths?

15. $7 \times \frac{2}{9} = ?$ $2 \times \frac{6}{9} = ?$ $3 \times \frac{7}{9} = ?$
$8 \times \frac{3}{9} = ?$ $4 \times \frac{4}{9} = ?$ $10 \times \frac{5}{9} = ?$
$9 \times \frac{7}{9} = ?$ $6 \times \frac{5}{9} = ?$ $5 \times \frac{6}{9} = ?$

16. $8 \times \frac{8}{9} = ?$ $2 \times \frac{8}{9} = ?$ $4 \times \frac{8}{9} = ?$
$3 \times \frac{8}{9} = ?$ $9 \times \frac{8}{9} = ?$ $10 \times \frac{8}{9} = ?$
$5 \times \frac{8}{9} = ?$ $7 \times \frac{8}{9} = ?$ $6 \times \frac{8}{9} = ?$

17. $5\frac{2}{9} = ?$ $6\frac{7}{9} = ?$ $2\frac{1}{9} = ?$
$9\frac{3}{9} = ?$ $4\frac{5}{9} = ?$ $10\frac{4}{9} = ?$
$7\frac{8}{9} = ?$ $8\frac{7}{9} = ?$ $3\frac{6}{9} = ?$

18. $\frac{56}{9} = ?$ $\frac{75}{9} = ?$ $\frac{83}{9} = ?$ $\frac{48}{9} = ?$
$\frac{59}{9} = ?$ $\frac{71}{9} = ?$ $\frac{65}{9} = ?$ $\frac{52}{9} = ?$
$\frac{69}{9} = ?$ $\frac{78}{9} = ?$ $\frac{43}{9} = ?$ $\frac{34}{9} = ?$

19. At the rate of $\frac{5}{8}$ of a ton of coal a month, how much coal would a family burn in 6 months?

20. At the rate of $\frac{4}{9}$ of a barrel of flour a month, how many barrels would a family use in 9 months?

56. 1. John traveled 4 hours at the rate of 9 miles an hour, and 5 hours at the rate of 8 miles an hour; how far did he travel?

2. A man sold a peck of cranberries at 9 cents a quart; how much did he receive for them?

3. What is the difference between 9 times 6 and 7 times 5?

4. How many weeks must a boy work to earn 32 dollars, if he earns 4 dollars a week?

5. How much does a boy earn a week if he earns 36 dollars in 6 weeks?

6. If a boy earned 6 dollars a week for 6 weeks, and spent 4 dollars each week, how much had he left?

7. How many quarts are there in 6 pecks?

8. How many days are there in 7 weeks?

9. How many pecks are there in 72 quarts?

10. How many pecks are 9 bushels?

11. How many are $36+25+18$?

12. In one bookcase are 72 books, and in another 38; how many more books are in the first bookcase than in the second?

13. A man had 94 books, and gave away 27 of them; how many were left?

14. What is the sum of $43+26+13$?

15. In a library are 16 books of travel, 27 books of history, 14 story books, and 18 books of poetry; how many books are in the library?

16. A lady divided 24 apples equally among 8 children; how many did each child receive?

17. How many weeks are 35 days?

18. How many square feet are 7 square yards?

19. If 9 tables cost 81 dollars, what is the cost of 1?

20. $\frac{1}{8}$ of a man's money is 6 dollars; how much has he?

57. 1. In an orchard are 16 peach trees, 23 apple trees, 33 quince trees, and 18 pear trees; how many trees are in the orchard?

2. Walking in the woods, Carrie saw 29 birds, and Jennie saw 23; how many more birds did Carrie see than Jennie?

3. George bought 9 tops for 6 cents apiece, and sold them for 8 cents apiece; how much did he gain?

4. How many weeks are 63 days?

5. A man had 50 dollars and spent $\frac{1}{5}$ of it; how much did he spend?

6. How many quarts are 6 gallons?

7. How many quarts are 5 pecks?

8. At 4 cents each how many pads can you buy for 28 cents?

9. Josie bought 6 pencils at 6 cents each, and gave a half-dollar to the dealer; what change did she receive?

10. $\frac{1}{8}$ of John's money is 7 cents; how much money has he?

11. 45 square feet equal how many square yards?

12. How many days are in 6 weeks?

13. What is the sum of $28 + 34 + 27$?

14. John had 75 cents; he bought paper for 24 cents and pencils for 8 cents; what had he left?

15. Carrie had 90 cents; she bought 6 pencils for 3 cents each; what had she left?

16. John walked 90 miles in 10 days; if he walked equal distances every day, how far did he walk each day?

17. 9 square yards contain how many square feet?

18. A family uses 49 eggs each week; what is that each day?

19. Lucy bought 6 pencils at 3 cents each, 2 bananas at 5 cents each, 2 spools of thread at 4 cents each, and a paper of needles for 5 cents; what was the cost of the whole?

20. How many legs have 9 spiders? 9 flies? 9 boys? 9 cats?

58. 1. If there is a certain number of pupils in one room, another number in another, and still another number in another, how many are there in all the rooms?

2. If there is a certain number of pupils in one room, and a smaller number in another, how many more pupils are in one room than in the other?

3. If a man buys goods or property for one price and sells them for a different price, when does he gain and when does he lose?

4. How much does he gain?

5. How much does he lose?

6. If a boy had a certain number of marbles and lost some of them, how many has he left?

7. How do we find the sum of numbers?

8. How do we find the difference between numbers?

9. How do we find what is left if one number is taken from another?

10. In one class are 18 pupils, in another are 16 pupils, and in another are 19 pupils; how many pupils are in all the classes?

In all there are as many pupils as the sum of 18, 16, and 19, which is ——. Answer —— pupils.

11. One flag pole is 57 feet high, and another is 42 feet high; how much higher is the first than the second?

It is as much higher as the difference between 57 and 42, which is ——. Answer —— feet higher.

12. A bookseller sold 44 books from a lot containing 50 books; how many books were left in the lot?

There were left 50 books less 44 books, which is —— books. Answer —— books.

NOTE: Explain the following problems in the same manner as the preceding.

13. A man bought goods for 25 dollars and sold them for 28 dollars; what did he gain?

14. A boy earned 65 cents one week and 75 cents the next; how much more did he earn the second week than the first?

15. A man rode 43 miles on a train and 18 miles on his bicycle; how far did he ride?

16. Joseph had 62 books and gave away 4 books; how many had he left?

17. A lady spent 5 dollars for a pair of shoes, 4 dollars for a hat, 1 dollar for a pair of gloves, and 10 dollars for a coat; what did they all cost?

18. One boy rode 12 miles in 2 hours, and another rode 10 miles; how much farther did the first boy ride than the second?

19. George started to ride 40 miles; when he had gone 30 miles how far had he still to go?

20. A street car carried 42 passengers down town and brought 28 back; how many more did it carry down than it brought back?

21. A grocer sold 36 bananas from a bunch containing 70 bananas; how many were left on the bunch?

22. One bunch of bananas contains 80, and another 92; how many more bananas are on one bunch than on the other?

23. A dealer sold 9 dozen eggs one day, 8 dozen the next day, 12 dozen the next day, and 14 dozen the next day; how many dozen did he sell during the four days?

24. A lady having 25 dollars bought goods to the amount of 18 dollars; what had she left?

59. 1. How much work can 2 persons do in a given time compared with what 1 person can do?

2. What is the value of 3 books compared with the value of 1?

3. How much work can a person do in 4 hours compared with what he can do in 1 hour?

4. If 1 man can build a certain number of feet of stone wall a day, how many feet could 5 men build in 1 day, working at the same rate?

5. If a man can build a certain number of feet of stone wall in a day, how many feet can he build in 6 days?

6. How do we find 2 times a number? 3 times? 4 times? 10 times? 9 times?

7. How much work can you do in 1 hour compared with what you can do in 2? in 3? in 5? in 10? in 8?

8. What is the value of 1 book compared with the value of 2? of 4? of 9? of 6? of 7?

9. How do you find $\frac{1}{2}$ of a number? $\frac{1}{3}$ of it? $\frac{1}{10}$ of it? $\frac{1}{8}$ of it? $\frac{1}{6}$ of it?

10. How many 1-ct. pencils could you buy with all your money?

11. For any number of dollars how many 1-dollar chairs could be bought?

12. For any sum of money how many 3-ct. tops could be bought?

13. For any number of dollars how many 5-dollar hats could be bought?

14. How many quarts are in any number of pints?

15. How many weeks are in any number of days?

16. At 4 cents a spool, what is the cost of 8 spools of thread?

At 4 cents a spool, 8 spools of thread would cost —— times 4 cents, which are —— cents. Answer —— cents.

17. How many days would it take 1 man, working alone, to do a piece of work which 8 men could do in 6 days?

If 8 men can do a piece of work in 6 days, it would take 1 man 8 times —— days, which are —— days. Answer —— days.

18. If 5 copies of a certain book cost 40 dollars, what is the cost of 1 copy?

If 5 copies cost 40 dollars, 1 copy costs —— of 40 dollars, which is —— dollars. Answer —— dollars.

19. How many quarts are in half a peck?

Since there are 8 quarts in 1 peck, in $\frac{1}{2}$ of a peck there are —— of 8 quarts, which is —— quarts. Answer —— quarts.

Note: Use *if* in a statement which is only a supposition, *since* in one which is always true.

20. At 2 cents each, how many tops can be bought for 18 cents?

At 2 cents each, as many tops can be bought for 18 cents as there are 2's in 18, which is ——. Answer —— tops.

21. How many weeks are there in 42 days?

Since there are seven days in one week, there are as many weeks in 42 days as there are 7's in 42, which is ——. Answer —— weeks.

Note: Explain the following examples in the same manner as those in the preceding exercise.

60. 1. If each of 5 cheeses weighs 9 pounds, what do they all weigh?

2. If 9 boys divide the expenses of a 63-dollar trip equally among themselves, how much does each boy pay?

3. If each of 7 girls makes 6 flags for the school, how many flags do they all make?

4. How many girls would it take to make 54 flags if they each made 6 flags?

5. A school marched in a column 7 children wide and 9 children long; how many children were in the column?

6. A lady bought each of her three children a book costing 8 dollars; what did she pay for all?

7. On each shelf of a bookcase are 9 books; there are 8 shelves; how many books are in the case?

8. There are 48 pencils done up in 8 equal bundles; how many pencils are in each bundle?

9. There are 54 persons seated on benches, 6 persons on each bench; how many benches are there?

10. How many weeks are 56 days?

11. How many gallons are 40 quarts?

12. How many pecks are 64 quarts?

13. How many bushels are 28 pecks?

14. How many quarts are 12 pints?

15. How many days are there in 9 weeks?

16. How many pints are there in 9 quarts?

17. How many pecks are there in 4 bushels?

18. How many yards are there in 27 feet?

19. How many quarts are there in 8 gallons?

20. How many gallons are there in 8 quarts?

21. How many square feet are equal to 8 square yards?

22. How many square yards are equal to 18 square feet?

23. Draw a rectangle 5 inches long which shall contain 15 square inches.

24. What is the width of a rectangle whose area is 36 square feet and whose length is 9 feet?

61. 1. If a boy walks half a mile 4 times a day, how far does he walk each day?

2. If a book costs $\frac{3}{4}$ of a dollar, what is the cost of 6 such books?

3. If I use $\frac{2}{3}$ of a barrel of flour in a month, how much do I use in 7 months?

4. If a family burns $\frac{4}{5}$ of a ton of coal a month, how much does it burn in 4 months?

5. If a boy walks $\frac{3}{5}$ of a mile 6 times a day, how far does he walk in a day?

6. If a yard of cloth costs $\frac{5}{6}$ of a dollar, what will 8 yards cost?

7. At the rate of $\frac{4}{7}$ of a pound of tea a week, how many pounds would a family use in 7 weeks?

8. If it takes $\frac{5}{7}$ of a yard of cloth to make a little jacket, how much would it take to make 5 such jackets?

9. If $\frac{3}{8}$ of a yard of cloth will make a cap, how much will be needed to make 9 caps?

10. If I use $\frac{5}{8}$ of a pound of butter a day, how much do I use in a week?

11. If $\frac{5}{9}$ of a barrel of flour is used in a month, how much will be used in 6 months?

12. If $\frac{7}{9}$ of a peck of potatoes is used in a week, how much will be used in 9 weeks?

13. $6 \times \frac{2}{3} = ?$ $7 \times \frac{2}{5} = ?$ $8 \times \frac{2}{9} = ?$ $9 \times \frac{2}{7} = ?$

14. $5 \times \frac{3}{4} = ?$ $6 \times \frac{3}{5} = ?$ $8 \times \frac{3}{7} = ?$ $7 \times \frac{3}{8} = ?$

15. $8 \times \frac{4}{5} = ?$ $9 \times \frac{4}{7} = ?$ $6 \times \frac{4}{9} = ?$ $8 \times \frac{5}{6} = ?$

16. $9 \times \frac{5}{7} = ?$ $7 \times \frac{5}{8} = ?$ $8 \times \frac{5}{9} = ?$ $5 \times \frac{6}{7} = ?$

17. $8 \times \frac{6}{9} = ?$ $5 \times \frac{7}{8} = ?$ $7 \times \frac{7}{9} = ?$ $9 \times \frac{8}{9} = ?$

SECTION VI

NUMBERS TO TEN THOUSAND

62. 1. Tell the value of the figure 1 in each of these numbers: 1; 10; 100; 1000.

2. Tell the value of each figure in this number: 222.

3. What is the value of a figure in the second place compared to the value of the same figure in the first place?

4. What is the value of a figure in the third place compared to the value of the same figure in the second place?

5. What is the value of a figure in the fourth place compared to the value of the same figure in the third place?

6. Read these numbers: 1,000; 2,000; 3,000; 4,000; 5,000; 6,000; 7,000; 8,000; 9,000.

7. How many figures are required to write any number between 1,000 and 9,000?

8. Read these numbers:

1,265
4,371
2,965
8,720
3,581
7,695
8,427
2,125
7,621

9. Read these numbers:

5,046
3,075
2,054
7,020
8,019
9,096
6,062
4,086
9,030

10. Read these numbers:

3,006
4,007
9,003
8,001
7,009
1,002
2,008
6,004
5,005

A figure representing thousands must be put in the fourth place. A comma may be placed between hundreds and thousands.

11. Count by thousands from one thousand to ten thousand. *Ten thousand is written* 10,000.

12. Write these numbers in figures:

Five thousand, eight hundred.
Six thousand, seventy-four.
Two thousand, eighteen.
Nine thousand, one.
Eight thousand, five hundred sixty.
Seven thousand, four hundred eighty-two.
Four thousand, three.
One thousand, ten.

63. 1. Write in figures:

Eight hundred nine.
Three thousand, one hundred one.
Six thousand, seven hundred.
Eight thousand, six hundred eighty.
Four thousand, nine hundred ninety-nine.

Add:

(2)	(3)	(4)	(5)
684	726	396	729
973	842	283	238
408	139	726	548
659	584	154	973
730	672	536	736
568	346	843	495
701	729	975	849
384	584	648	437

(6)	(7)	(8)	(9)
593	865	394	298
275	649	729	564
648	378	638	723
721	652	475	835
935	857	926	946
467	368	384	724
842	927	695	139
999	465	483	843

64. Subtract:

(1)	(2)	(3)	(4)
397	483	729	623
125	275	184	195

(5)	(6)	(7)	(8)
409	500	801	710
263	175	236	235

9. One thousand equals how many hundreds?

Subtract, considering one thousand as ten hundreds whenever the hundreds in the minuend are less than those in the subtrahend:

(10)	(11)	(12)	(13)
4627	5263	8329	6090
1395	1847	4444	1275

(14)	(15)	(16)	(17)
8276	7241	8091	5283
3548	5729	2569	4729

(18)	(19)	(20)	(21)
8762	9628	8695	7420
3954	4375	2389	3946

(22)	(23)	(24)	(25)
7654	3846	5942	6710
1928	1908	3290	2095

65. 1. If, in subtraction, the units of the minuend are less than those of the subtrahend, where do we get the units to add to those of the minuend?

2. If there are none in the tens' place, what do we do?

3. How do we consider one hundred in order to have ten units from it?

Note: In the following examples we find the tens in the minuend less than those in the subtrahend, and nothing in the hundreds' place. We must consider one thousand as nine hundreds and ten tens.

(4)	(5)	(6)	(7)
8026	7042	5038	3096
1293	3268	2654	1299

(8)	(9)	(10)	(11)
5042	9029	6018	8017
3169	4375	3275	5369

(12)	(13)	(14)	(15)
6037	8059	7056	8091
1296	2396	5183	3296

(16)	(17)	(18)	(19)
8011	9019	6014	7063
3465	8027	3029	2590

(20)	(21)	(22)	(23)
8067	2063	3017	4014
1392	1275	1926	3297

66. Subtract:

(1)	(2)	(3)	(4)	(5)	(6)
4628	5842	7231	8637	5901	8203
1937	3769	1509	3792	2675	1756

(7)	(8)	(9)	(10)	(11)	(12)
5063	8091	7608	8301	5010	6082
1274	3275	1296	2965	1273	1390

(13)	(14)	(15)	(16)	(17)	(18)
7061	8109	7638	8596	4012	6038
1293	5092	2970	1278	1397	5296

(19)	(20)	(21)	(22)	(23)	(24)
8013	6091	8056	5061	7082	6027
5327	1273	1249	3243	1309	4362

67. Subtract:

(1)	(2)	(3)	(4)
5203	3501	8603	7802
1195	1297	5824	5926

5. If the units in the minuend are less than the units in the subtrahend, and there are no tens in the minuend, what do we do?

6. If there were no hundreds, what should we do?

7. How should we consider the thousand?

8. How many are nine hundreds, nine tens, and ten units?

Subtract the following, considering one thousand as nine hundreds, nine tens, and ten units.

(9)	(10)	(11)	(12)	(13)	(14)
4001	8003	6005	8002	6001	5000
1296	5268	4376	1725	1275	2964
(15)	(16)	(17)	(18)	(19)	(20)
8005	7000	5008	8003	7006	5004
1276	2934	1209	2096	3497	4169
(21)	(22)	(23)	(24)	(25)	(26)
9006	8004	9003	8000	5001	8003
1378	5675	2567	1756	2365	1969

68. Subtract:

(1)	(2)	(3)	(4)	(5)	(6)
8009	7018	5601	8063	4026	8006
1265	3269	1927	2738	1379	1279
(7)	(8)	(9)	(10)	(11)	(12)
5003	7009	8063	5092	7203	4010
2167	1263	1294	3176	1926	2654
(13)	(14)	(15)	(16)	(17)	(18)
7061	8005	7002	8061	8003	5962
2973	2963	3967	2395	1296	1379
(19)	(20)	(21)	(22)	(23)	(24)
5638	6010	7026	8205	6308	7680
1743	1265	1398	1729	1479	4265

69. 1. Write in figures:

Seven thousand, nine.
Eight thousand, forty-five.
Three thousand, nine hundred eleven.
One thousand, one.
Six thousand, two hundred forty-five.
Nine thousand, four hundred eighty-seven.

2. $187 + 541 + 359 + 831 + 783 + 621 = ?$

3. $673 + 843 + 578 + 234 + 790 + 859 = ?$

4. $759 + 651 + 891 + 312 + 498 + 724 = ?$

5. $3795 - 1269 = ?$ $3891 - 1456 = ?$

6. $5263 - 787 = ?$ $8190 - 5203 = ?$

7. $6002 - 827 = ?$ $5900 - 1637 = ?$

8. A man bought a carriage for $84 and sold it for $105; how much did he gain?

9. A man owns a field containing 465 square feet of land, and another containing 129 square feet; how many more square feet does the larger field contain than the other?

10. A man had 842 quarts of milk and sold 675 quarts; how many quarts had he left?

11. A horse and carriage together cost $541; the carriage cost $163; what did the horse cost?

12. A boy sold 74 papers one day, 22 papers another day, 89 another, 73 another, 16 another, 35 another, and 63 another; how many papers did he sell in the 7 days?

70. Tell the meaning of these forms:

(1)
$$\begin{array}{l} 563 \\ \underline{\times 4 \text{ men}} \end{array}$$

(2)
$$\begin{array}{l} 843 \text{ men} \\ \underline{\times 5} \end{array}$$

(3)
$$\begin{array}{l} 725 \text{ sq. ft.} \\ \underline{\times 6} \end{array}$$

(4)
$$\begin{array}{l} 843 \\ \underline{\times 6 \text{ sq. ft.}} \end{array}$$

(5)
$$2\overline{)\underline{728 \text{ men.}}}$$

(6)
$$2 \text{ apples}\overline{)\underline{46 \text{ apples}}}$$

7. How do we find 2 times a number? 7 times? 3 times?

8. How do we find how many 2's there are in a number? 3's? 4's? 7's? 6's?

9. How do we find $\frac{1}{2}$ of a number? $\frac{1}{4}$? $\frac{1}{8}$? $\frac{1}{7}$?

10. Find 2 times 987 feet.

11. Find 2 times 306 men.

12. Find 2 times 452 yards.

13. Find $\frac{1}{2}$ of 2,684 feet.

14. Find how many times 2 pints are contained in 7,896 pints.

15. Find $\frac{1}{3}$ of 8,628 miles.

16. Find how many times 3 is contained in 7,946.

17. $5395 \div 3 = ?$

71. 1. Write in figures:

Seven thousand, four hundred sixty.
Three thousand, ninety-seven.
Five thousand, six hundred.
Nine thousand, forty.
Eight thousand, eleven.
Four thousand, two hundred nine.

2. $418 + 356 + 751 + 842 + 739 + 847 = ?$
3. $569 + 895 + 418 + 752 + 314 + 792 = ?$
4. $7123 - 1046 = ?$
5. $8710 - 3276 = ?$
6. $4600 - 132 = ?$
7. $5000 - 565 = ?$
8. $781 \times 2 = ?$
$493 \times 2 = ?$
$652 \times 2 = ?$
$809 \times 2 = ?$
$965 \times 3 = ?$
$740 \times 3 = ?$
$208 \times 3 = ?$
$103 \times 3 = ?$
9. Find $\frac{1}{4}$ of 7636 pounds of iron.
10. Divide 8999 by 4.
11. Find how many times 4 feet are contained in 2972 feet.
12. A man sold 85 acres of land to one man, 34 to another, 22 to another, 96 to another, 67 to another, and 93 to another; how many acres did he sell in all?
13. 462 shoes are how many pairs of shoes?
14. How many pints of milk are there in 98 quarts?

72. 1. Write in figures:

One thousand, two hundred one.
Nine thousand, six hundred five.
Eight thousand, forty.
Seven hundred sixty-nine.
Five hundred seventy.
Three thousand, ninety.

2. $758 + 682 + 924 + 893 + 718 + 638 = ?$
3. $536 + 882 + 515 + 671 + 859 + 396 = ?$

4. $3100 - 512 = ?$ $5728 - 1261 = ?$

5. $6110 - 4092 = ?$ $3610 - 472 = ?$

6. In each of 5 schoolrooms are 46 pupils; how many pupils are in the 5 rooms?

7. Find how many times 5 feet are contained in 990 feet.

8. Find $\frac{1}{5}$ of 270 miles.

9. Find how many times 5 dollars is contained in 1735 dollars.

($ stands for dollars and is written before the number, as $5.)

10. Find how many times $5 is contained in $6545.

11. $809 \times 4 = ?$ $430 \times 5 = ?$
$765 \times 4 = ?$ $706 \times 5 = ?$
$340 \times 4 = ?$ $192 \times 5 = ?$
$219 \times 4 = ?$ $850 \times 5 = ?$

12. $4489 \div 5 = ?$ $3428 \div 5 = ?$
$4791 \div 5 = ?$ $3160 \div 5 = ?$
$3374 \div 5 = ?$ $7262 \div 5 = ?$

73. 1. There are 5 baskets, each containing 69 peaches; how many peaches are in all the baskets?

2. A train going at the rate of 38 miles an hour will go how far in 5 hours?

3. 280 nuts were divided equally among 5 boys; how many nuts did each receive?

4. 84 is $\frac{1}{5}$ of what number?

5. $500 + 469 + 875 + 387 + 977 + 823 = ?$

6. $670 + 829 + 423 + 583 + 674 + 898 = ?$

7. $5843 - 1296 = ?$ $9610 - 7256 = ?$
8. $7500 - 1962 = ?$ $8009 - 2943 = ?$
9. $540 \times 6 = ?$ $938 \times 6 = ?$
$897 \times 6 = ?$ $216 \times 6 = ?$
10. $2115 \div 5 = ?$ $4363 \div 5 = ?$
$5880 \div 5 = ?$ $9873 \div 5 = ?$
$1469 \div 5 = ?$ $1825 \div 5 = ?$

74. 1. 924 pencils are done up in bundles of 6; how many bundles are there?

2. A man divided $174 equally among 4 sons and 2 daughters; how much did each receive?

3. In 6 pounds there are 96 ounces; how many ounces are there in a pound?

4. A hogshead contains 63 gallons; how many gallons do 6 hogsheads contain?

5. Write in figures:

Eight thousand, two hundred sixty-seven.
Five hundred nine.
Eighty-four.
Three thousand, sixty.
Eight thousand, two hundred one.
Four thousand, one.

6. $985 + 832 + 799 + 854 + 687 + 564 = ?$
7. $397 + 816 + 488 + 922 + 863 + 546 = ?$
8. $5375 - 2106 = ?$ $4702 - 1265 = ?$
9. $2901 - 675 = ?$ $5300 - 2910 = ?$

10. $720 \times 7 = ?$ $836 \times 7 = ?$
$594 \times 7 = ?$ $918 \times 7 = ?$

11. $4962 \div 6 = ?$ $5611 \div 6 = ?$
$2254 \div 6 = ?$ $6747 \div 6 = ?$
$4609 \div 6 = ?$ $3738 \div 6 = ?$
$2915 \div 6 = ?$ $8651 \div 6 = ?$

12. Find $\frac{1}{6}$ of 168 apples.

75. 1. A man spent $390 for tables at $6 each; how many tables did he buy?

2. A man gave $69 to each of his 4 sons and 2 daughters; how much did he give to all?

3. At $6 each what is the cost of 97 chairs?

4. 92 is $\frac{1}{6}$ of what number?

5. 990 persons are seated, 6 persons on a bench; how many benches are there?

6. Write in figures:

Three hundred nine.
Seven thousand, four.
Eight hundred sixty.
Fifty-nine.
Two thousand, six hundred one.
Five thousand, nineteen.

7. $836 + 982 + 715 + 871 + 659 + 896 = ?$

8. $219 + 731 + 869 + 468 + 512 + 387 = ?$

9. $5275 - 3109 = ?$ $8009 - 7321 = ?$
$4001 - 2365 = ?$ $5010 - 2165 = ?$

10. $648 \times 8 = ?$ $504 \times 8 = ?$
$937 \times 8 = ?$ $710 \times 8 = ?$

11. $5504 \div 6 = ?$ $1956 \div 6 = ?$
$5390 \div 6 = ?$ $4721 \div 6 = ?$
$2037 \div 6 = ?$ $3888 \div 6 = ?$
$4183 \div 6 = ?$ $3932 \div 6 = ?$

12. 75 is $\frac{1}{6}$ of what number?

76. 1. A seven-room school building seats 49 pupils in each room; how many pupils does the whole building seat?

2. An orchard contains 7 rows of trees, 67 trees in each row; how many trees are in the orchard?

3. A man started to walk 400 miles; when he had traveled 294 miles, how far had he still to go?

4. George spent 137 days in the country; how many weeks was he there?

5. Write in figures:

Seven hundred eleven.
Forty-five.
Nine hundred one.
Nine thousand, one.
Ninety-one.
Six thousand, two hundred forty-eight.

6. $819 + 792 + 863 + 436 + 748 + 680 = ?$

7. $546 + 344 + 928 + 397 + 452 + 732 = ?$

8. $3800 - 1275 = ?$ $7001 - 1296 = ?$
$5200 - 3642 = ?$ $8009 - 4273 = ?$

9. 763 × 8 = ? 975 × 8 = ?
408 × 8 = ? 192 × 8 = ?

10. 1234 ÷ 7 = ? 6415 ÷ 7 = ?
2855 ÷ 7 = ? 1861 ÷ 7 = ?
3974 ÷ 7 = ? 6629 ÷ 7 = ?
5945 ÷ 7 = ? 3752 ÷ 7 = ?
2715 ÷ 7 = ? 4301 ÷ 7 = ?

77. 1. In a seven-room school building are 336 seats equally divided among the rooms; how many seats are in each room?

2. A dealer paid $7 each for 97 tables; what did he pay for all?

3. How many days are 46 weeks and 3 days?

4. How many ounces are in 7 pounds?

5. Write in figures:

Seven thousand, eighty.
Nine thousand, six hundred eight.
Four thousand, eight hundred seventy-five.
Two thousand, six.
Eight hundred eight.
Ninety-five.

6. 537 + 861 + 547 + 822 + 969 + 781 = ?

7. 367 + 861 + 447 + 769 + 581 + 216 = ?

8. 380 − 199 = ? 621 − 283 = ?
540 − 211 = ? 593 − 129 = ?
711 − 590 = ? 701 − 209 = ?

9. 608 × 9 = ? 952 × 9 = ?
734 × 9 = ? 198 × 9 = ?

10. 3524 ÷ 7 = ?
6281 ÷ 7 = ?
2150 ÷ 7 = ?
4800 ÷ 7 = ?
1769 ÷ 7 = ?
9396 ÷ 7 = ?
2097 ÷ 7 = ?
5733 ÷ 7 = ?

78. 1. A man earned $ 800 in a year and spent $ 609; how much did he save?

2. A man started to travel 900 miles; when he had gone 768 miles, how far had he still to go?

3. At $ 7 each what is the cost of 87 clocks?

4. At $ 7 a week for board, how many weeks can a man board for $ 651?

5. A dealer cut 42 yards of cloth from a piece containing 80 yards; how many yards were left in the piece?

6. Find the difference between 423 bushels and 206 bushels.

7. How many weeks are 84 days?

8. Find 96 times $ 8.

9. Find 8 times 43 days.

10. Find $\frac{1}{7}$ of 693 peaches.

11. $\frac{1}{7}$ of my money is $ 87; how much money have I?

12. 5353 ÷ 8 = ?
1952 ÷ 8 = ?
5401 ÷ 8 = ?
1109 ÷ 8 = ?
6385 ÷ 8 = ?
6116 ÷ 8 = ?

79. 1. One steamboat sailed 924 miles in a week, and another sailed 884 miles; how much farther did the first boat sail than the second?

2. If a boy can buy 8 marbles for a cent, how many can he buy for 98 cents?

3. If a hall contains 156 benches, 5 persons on a bench, how many persons are in the hall?

4. How many pecks are there in 872 quarts?

5. How many days are 98 weeks?

6. How many weeks are 98 days?

7. $823 + 968 + 717 + 463 + 875 + 972 = ?$

8. $659 + 812 + 387 + 625 + 983 + 732 = ?$

9. $5006 - 1275 = ?$

10. $6003 - 4009 = ?$

11. $8010 - 2091 = ?$

12. $4764 \div 8 = ?$ $\quad 7597 \div 8 = ?$
$7192 \div 8 = ?$ $\quad 5294 \div 8 = ?$

80. 1. $628 + 731 + 619 + 894 + 983 + 366 = ?$

2. $884 + 758 + 352 + 619 + 891 + 864 = ?$

3. $948 - 362 = ?$

4. $1000 - 861 = ?$

5. $8750 - 2090 = ?$

6. $2023 \div 8 = ?$ $\quad 2228 \div 8 = ?$ $\quad 6425 \div 8 = ?$
$4114 \div 8 = ?$ $\quad 5726 \div 8 = ?$ $\quad 6586 \div 8 = ?$

7. Find $\frac{1}{8}$ of 848 peaches.

8. Find how many times $ 8 is contained in $ 136.

9. 8 persons contributed $ 98 each to a library; how much did the library receive?

10. How much money would a man save in 9 months, if he saved $ 18 a month?

11. 84 is $\frac{1}{9}$ of what number?

12. How many square feet are there in 76 square yards?

81. 1. $629 + 872 + 539 + 462 + 834 + 945 = ?$

2. $738 + 697 + 868 + 781 + 526 + 870 = ?$

3. $7001 - 1269 = ?$

4. From 8060 take 4090.

5. Find the difference between 8917 and 1296.

6. $1010 \div 8 = ?$ $4843 \div 8 = ?$ $7075 \div 8 = ?$
$6714 \div 8 = ?$ $1752 \div 8 = ?$ $3245 \div 8 = ?$
$2748 \div 8 = ?$ $5896 \div 8 = ?$ $\frac{1}{8}$ of $\$452 = ?$

7. 670 persons are seated in a hall, 5 persons on each bench; how many benches are there in the hall?

8. A man having 910 acres of land sold 372 acres; how many acres had he left?

9. A man had 200 sheep and sold 161 of them; how many sheep had he left?

10. Find 8 times 63 gallons.

11. Find how many times 8 yards are contained in 920 yards.

82. Add:

(1)	(2)	(3)	(4)
648	438	847	563
783	697	273	783
945	824	936	916
693	395	876	256
729	739	438	346
861	682	653	574
532	792	762	742

Subtract:

(5)	(6)	(7)	(8)
3001	7040	6000	8263
1269	3094	2175	1079

Multiply:

(9)	(10)	(11)	(12)
596	374	801	260
× 9	× 9	× 9	× 9

Divide:

(13)	(14)	(15)	(16)	(17)
9)8095	9)4656	9)5310	9)6274	9)1917

(18)	(19)	(20)	(21)	(22)
9)3528	9)7189	9)4337	9)8691	9)6827

23. A dealer sold 275 lemons from a box containing 500 lemons; how many lemons remained?

24. If 1 man can do a piece of work in 848 days, how many days would 8 men require to do it?

83. Add:

(1)	(2)	(3)	(4)
547	518	267	635
678	649	571	464
233	575	339	935
968	263	715	791
723	784	218	677
675	392	630	865
852	187	576	314

Subtract:

(5)	(6)	(7)	(8)
3021	4209	7301	8001
975	1363	4096	1297

Multiply:

(9)	(10)	(11)	(12)
203	670	954	180
× 9	× 9	× 9	× 9

Divide:

(13)	(14)	(15)	(16)	(17)
9)2581	9)7634	9)3453	9)6725	9)6090
(18)	(19)	(20)	(21)	(22)
9)1288	9)5087	9)2901	9)1472	9)5624

23. A farmer owns 9 fields, each containing 72 acres of land; how many acres does he own?

24. A lady bought a hat for $5, a pair of shoes for $4, and a dress for $22. How much did they all cost?

84. 1. How many pints are 98 quarts?

2. How many feet are 75 yards?
3. How many pecks are 64 bushels?
4. How many quarts are 84 gallons?
5. How many feet have 94 dogs?
6. How many wings have 38 flies?
7. How many days are 98 weeks?

8. How many quarts are 96 pecks?
9. How many square feet are 99 square yards?
10. How many square yards are 99 square feet?
11. How many bushels are 96 pecks?
12. How many weeks are 98 days?
13. How many gallons are 84 quarts?
14. How many yards are 75 feet?
15. $8442 \div 9 = ?$
16. $5244 \div 9 = ?$
17. $7762 \div 9 = ?$
18. $4449 \div 9 = ?$
19. $2170 \div 9 = ?$
20. $8306 \div 9 = ?$
21. $3180 \div 9 = ?$
22. $4096 \div 9 = ?$
23. $4541 \div 9 = ?$
24. $2353 \div 9 = ?$

SECTION VII

UNITED STATES MONEY

85. 1. What coins of United States money do you know?

2. Which is the smallest in value?

3. How many of them are equal in value to a dime?

4. How many of them are equal in value to a half dollar?

5. How many of them are equal in value to a quarter dollar?

6. How many of them are equal in value to a dollar?

7. A cent is what part of a dime?

8. A dime is what part of a dollar?

9. A cent is what part of a dollar?

10. One hundred and one cents are how many dollars and how many cents?

11. Six hundred cents are how many dollars?

12. Two hundred and nine cents are how many dollars and how many cents?

13. Five hundred sixty-five cents are how many dollars and how many cents?

14. 101 cents equal $1.01.
600 cents equal $6.00.
209 cents equal $2.09.
565 cents equal $5.65.

15. Read these amounts:

$5.01
$7.03
$9.02
$1.15
$42.63
$57.09
$87.42
$96.50
$408.02
$317.11
$590.04
$728.60

16. Write in figures:

Seven dollars twenty-five cents.
Three dollars eighty cents.
Fifty-six dollars seven cents.
Eight hundred dollars nine cents.
Five hundred four dollars fifty cents.

17. Where is the point placed in writing United States money?

18. How many figures follow the point?

19. Read these amounts:

$6.00
$27.01
$.01
$4.49
$.49
$45.00
$75.26
$.26
$87.00
$86.42
$.42
$.87

20. Read these amounts:

$.19
$.20
$.37½
$.63
$.46
$.96
$.04
$.75
$.87½
$.09
$.24
$.40

21. Write in figures:

Six dollars four cents.
Eighteen dollars twenty cents.
Ninety-nine cents.
Thirteen cents.
Forty-two cents.
Forty-two dollars.
Sixty-two and a half cents.

22. Add:

$$\begin{array}{rrrr} \$\ 4.02 & \$\ 7.50 & \$\ 6.45 & \$\ 6.26 \\ 19.75 & 76.44 & .18 & 53.81 \\ 86.42 & .32 & 98.04 & .18 \\ \underline{13.05} & \underline{5.81} & \underline{.66} & \underline{6.45} \end{array}$$

23. Subtract:

$$\begin{array}{rrrr} \$\,48.32 & \$\,39.68 & \$\,4.32 & \$\,12.13 \\ \underline{24.71} & \underline{13.75} & \underline{1.85} & \underline{7.39} \end{array}$$

24. Multiply:

$$\begin{array}{rrrr} \$\,25.34 & \$\,53.42 & \$\,45.23 & \$\,34.52 \\ \underline{\times 2} & \underline{\times 3} & \underline{\times 4} & \underline{\times 5} \end{array}$$

86. 1. Mr. Brown bought a coat for $25, a hat for $3.50, shoes for $6.00, and an umbrella for $3.75; what did he pay for all?

2. A dealer bought a picture for $12.50 and sold it for $20; what was the gain or loss?

3. Jennie earned $30 and spent $16.99; what had she left?

4. Mary has $84.16, and Cora has $105; how much more has Cora than Mary?

5. A lady bought a carpet for $45.86, a table for $16, a sofa for $55.87, and chairs for $37.50; what was the cost of all?

6. $\$1.43 + \$.98 + \$40.28 + \$.15 = ?$

7. $\$3.05 + \$70.52 + \$.98 + \$1.43 = ?$

8. $\$5.81 + \$.32 + \$33.37 + \$.81 = ?$

9. $\$2.05 - \$.31 = ?$

10. $[illegible] − $[illegible] = ?

11. $[illegible] − $[illegible] = ?

12. $[illegible] ÷ [illegible] = ?

13. $[illegible] × [illegible] = ?

14. $[illegible] × [illegible] = ?

15. $[illegible] × [illegible] = ?

16. Write in figures:

Eighteen dollars nine cents.
Four dollars forty cents.
Seventy-five cents.
Three cents.
Fourteen dollars four cents.

NOTE.—ct., cts., and ¢ are used for cent and cents, but not when the sign $ is used; as 14 cts., 14¢, or $.14.

87. 1. Find ½ of $26.16.

2)$26.16
$13.08

2. Find ½ of $97.

2)$97.00
$48.50

3. Find ½ of $58.95.

2)$58.95
$29.47½

4. Divide $984 by 2.

2)$984
$492

5. How many times is $.02 contained in $17.28?

$.02)$17.28
864

6. How many times is $.02 contained in $87.87?

$.02)$87.87
4393, 1¢ rem.

7. How many times is $.02 contained in $98?

$.02)$98.00
4900

8. $767 ÷ $2 = ?

$2)$767
383, $1 rem.

Observe that in dividing a sum of money by 2, or finding ½ of it, there can be no remainder, as ½ of 3¢ is 1½¢. Observe that in dividing a sum of money by cents, the remainder is cents, as 2¢ is contained in 3¢ once, with 1¢ rem. Compare examples 2 and 4. As ½ of 97 is not a whole number, the division is carried out into cents. Observe example 7. In dividing dollars by cents, the division must be carried out two places.

9. $86.47 ÷ 2 = ?
10. $9783 ÷ $2 = ?
11. ½ of $89.75 = ?
12. ½ of $9684 = ?
13. $87.46 ÷ $.02 = ?
14. $59.38 ÷ $.02 = ?
15. $63.28 ÷ 2 = ?
16. $71.58 ÷ $.02 = ?

17. At 2¢ each, how many tops can a dealer buy for $7.28?

18. A man divided $25 equally between his two boys; how much did he give to each?

19. 2 chairs of equal value cost $17.50; what was the cost of each?

20. How many 2-cent pieces equal in value $92?

88. 1. $7.52 + $45.05 + $.25 + $3.24 = ?
2. $4.68 + $3.28 + $9.81 + $3.45 + $1.28 = ?
3. $.37 + $4.21 + $53.70 + $.49 = ?
4. $.25 + $3.24 + $12.31 + $.23 = ?
5. $79.12 − $50.38 = ?
6. $4.32 − $1.85 = ?
7. $12.13 − $7.39 = ?
8. $4.29 − $1.51 = ?
9. $76.98 × 2 = ?
10. $96.78 × 3 = ?
11. $98.67 × 4 = ?
12. $69.87 × 5 = ?
13. $40.71 ÷ 3 = ?
14. $53.97 ÷ 3 = ?
15. $71.85 ÷ 3 = ?
16. $84.20 ÷ 3 = ?

17. George earned $11.25, and Henry earned $5.18; how much more did George earn than Henry?

18. A book cost $4.61, a box $.78, a portfolio $1.58, and a vase $3.19; what did they all cost?

19. If 3 books of equal value cost $13.68, what is the cost of each?

20. If chairs cost $3.50 each, what is the cost of half a dozen?

21. Find $\frac{1}{3}$ of $26.24.

22. $25.92 ÷ $.03 = ?

23. What is $\frac{1}{3}$ of $87.87?

24. $46.53 ÷ $.03 = ?

25. $796 ÷ $.03 = ?

89. 1. Write in figures:

Eighty dollars sixteen cents.
Ninety dollars nine cents.
Sixty-two cents.
Thirty-three dollars three cents.
Fifteen dollars.

2. $4.63 + $9.81 + $3.45 + $1.28 + $7.20 + $56.04 + $.48 + $7.47 = ?

3. $.16 + $9.08 + $63.25 + $.37 + $61.62 + $4.21 = ?

4. $95.55 – $79.49 = ?

5. $8.43 – $2.96 = ?

6. $70.03 – $26.91 = ?

7. $76.89 × 6 = ?

8. $68.97 × 7 = ?

9. $78.96 × 8 = ?

10. $86.79 × 9 = ?

11. What is $\frac{1}{4}$ of $12.28?

12. Divide $21.05 by 4.

13. How many times is 4 cents contained in $35.12?

14. $95.00 ÷ $.04 = ?

15. $74.76 ÷ 4 = ?

16. $33.44 ÷ $.04 = ?

17. A lady bought a hat for $7.17, a pair of gloves for 87 cents, a dress for $28, and a ribbon for 62 cents; what did they all cost?

18. A watch and chain cost $90; the chain cost $16.75; what did the watch cost?

19. What is the cost of 8 books at $16.25 each?

20. A horse cost $300, and a carriage cost $127.50; how much more did the horse cost than the carriage?

90. 1. $.84 + $1.62 + $25.91 + $.72 = ?
2. $89.19 + $.84 + $1.62 + $6.25 = ?
3. $8.92 + $.56 + $30.11 + $.45 = ?
4. $7.68 + $23.47 + $.56 + $8.92 = ?
5. $1.58 + $.78 + $53.90 + $.36 = ?
6. $3.74 + $39.26 + $.17 + $7.19 = ?
7. $24.36 − $13.75 = ?
8. $8.19 − $1.62 = ?
9. $17.85 − $9.77 = ?
10. $6.38 − $5.52 = ?
11. $80 − $17.17 = ?
12. $96.75 − $39 = ?
13. $32.04 × 2 = ?
14. $24.03 × 3 = ?
15. $40.23 × 4 = ?
16. $34.02 × 5 = ?
17. Find ¼ of $11.76.
18. $22.98 ÷ 4 = ?
19. $66.97 ÷ $.04 = ?
20. $58.39 ÷ $.04 = ?
21. $53.85 ÷ 5 = ?
22. $21.60 ÷ $.05 = ?
23. $98.70 ÷ 5 = ?
24. What is ⅕ of $89.40?
25. $863 ÷ 5 = ?

91. 1. $1.55 + $21.72 + $5.38 + $8.57 + $.87 = ?

2. $1.75 + $92.35 + $.39 + $2.43 = ?

3. $2.43 + $.39 + $43.21 + $.96 = ?

4. $96.75 − $52.58 = ?

5. $34.24 − $5.91 = ?

6. $70.01 − $36.89 = ?

7. $56.07 × 2 = ?

8. $75.95 × 3 = ?

9. $57.06 × 4 = ?

10. $70.56 × 5 = ?

11. What is ⅕ of $32.65?

12. $45.23 ÷ 5 = ?

13. $74.22 ÷ 5 = ?

14. $38.17 ÷ 5 = ?

15. $14.80 ÷ $.05 = ?

16. $47.75 ÷ $.05 = ?

17. What is ⅕ of $12.43?

18. $59.53 ÷ 5 = ?

19. $29.91 ÷ 5 = ?

20. $78.68 ÷ 5 = ?

21. George has $7.80, Walter has $5.27, Mary has $.46, and Carrie has $9.05: how much money have they all?

22. John had $74.54 in the bank, and took out $68: how much had he left?

23. At $86.32 each, what is the cost of 6 house lots?

24. At 6 cents each, how many pads can be bought for $59.04?

92. 1. Write in figures and add:

One dollar seventy-five cents.
Nine dollars five cents.
Forty-six cents.
Sixty-eight dollars four cents.
Fifty-eight cents.

2. $12.06 + $7.83 + $14.38 + $.06 + $9.24 + $23.12 = ?

3. $27.12 + $.03 + $1.52 + $8.17 + $13.46 + $.31 = ?

4. $74.54 − $68.05 = ?

5. $10.74 – $4.58 = ?
6. $53.47 – $11.56 = ?
7. $\frac{1}{6}$ of $94.59 = ?
8. $\frac{1}{6}$ of $86.28 = ?
9. $\frac{1}{6}$ of $49.62 = ?
10. $75.11 ÷ 6 = ?
11. $5278 ÷ $6 = ?
12. $13.52 ÷ 6 = ?
13. $51.30 ÷ $.06 = ?
14. $38.34 ÷ $.06 = ?
15. $43.92 ÷ $.06 = ?
16. $56.16 ÷ $.06 = ?

Find 49 times 5 cents.

```
   49
  $.05
 -----
 $2.45
```

17. 809 × $.02 = ?
18. 908 × $.03 = ?
19. 980 × $.04 = ?
20. 890 × $.05 = ?

21. At 2 cents each, what is the cost of 58 tops?

22. If 1 pad costs 4 cents, what will be the cost of pads to provide a school of 156 pupils?

23. If a car conductor receives 5 cents from each passenger, how much does he receive from 436 passengers?

24. At 3 cents a yard, what is the cost of 97 yards of ribbon?

93. 1. Write in figures and add:

Nine dollars forty-two cents.
Twelve dollars sixteen cents.
Four dollars thirty-five cents.
Six dollars seven cents.
Eighty-four dollars thirteen cents.
Five cents.

2. $42.83 + $5.06 + $12.13 + $4 + $3.05 + $.71 = ?
3. $6.82 + $14.35 + $5.07 + $12.14 + $.03 + $8.64 = ?
4. $11.56 – $9.64 = ?

5. $16.91 – $9.27 = ?
6. $90.90 – $8.07 = ?
7. $4.03 × 6 = ?
8. $24.30 × 7 = ?
9. 304 × $.08 = ?
10. 430 × $.09 = ?
11. ⅙ of $35.37 = ?
12. ⅙ of $14.09 = ?
13. $28.04 ÷ 6 = ?
14. $55.06 ÷ 6 = ?
15. $56.16 ÷ $.06 = ?
16. $37.71 ÷ $.06 = ?
17. $4165 ÷ $6 = ?
18. $7827 ÷ 6 = ?

19. At 4 cents each, how many pads can be bought for $5.16?

20. At 4 cents each, what is the cost of 516 pads?

21. $553 was divided equally among 7 persons; what did each receive?

22. A man saved $182 in 7 months; how much was that each month?

23. A lady went shopping with $41; when she returned she had only $6.31; how much had she spent?

24. Which costs more, 46 chairs for $9 each, or 835 pencils at 6 cents each? How much more?

94. 1. Write in figures and add:

Five dollars seven cents.
Twelve dollars sixteen cents.
Three dollars twenty-four cents.
Eighty-two cents.
Three cents.
Sixteen dollars.

2. $72.18 + $6.04 + $13 + $.07 + $1.37 = ?
3. $68.04 + $5.80 + $9.05 + $.46 + $.03 + $78.13 = ?
4. $24.03 – $12.17 = ?

SECTION VII

UNITED STATES MONEY

85. 1. What coins of United States money do you know?

2. Which is the smallest in value?

3. How many of them are equal in value to a dime?

4. How many of them are equal in value to a half dollar?

5. How many of them are equal in value to a quarter dollar?

6. How many of them are equal in value to a dollar?

7. A cent is what part of a dime?

8. A dime is what part of a dollar?

9. A cent is what part of a dollar?

10. One hundred and one cents are how many dollars and how many cents?

11. Six hundred cents are how many dollars?

12. Two hundred and nine cents are how many dollars and how many cents?

13. Five hundred sixty-five cents are how many dollars and how many cents?

14. 101 cents equal $1.01.
600 cents equal $6.00.
209 cents equal $2.09.
565 cents equal $5.65.

15. Read these amounts:

$5.01
$7.03
$9.02
$ 1.15
$42.63
$57.09
$ 87.42
$ 96.50
$408.02
$317.11
$590.04
$728.60

16. Write in figures:

Seven dollars twenty-five cents.
Three dollars eighty cents.
Fifty-six dollars seven cents.
Eight hundred dollars nine cents.
Five hundred four dollars fifty cents.

17. Where is the point placed in writing United States money?

18. How many figures follow the point?

19. Read these amounts:

$ 6.00
$ 27.01
$ .01
$ 4.49
$ .49
$ 45.00
$ 75.26
$ .26
$ 87.00
$ 86.42
$ .42
$ .87

20. Read these amounts:

$ .19
$ .20
$ .37½
$ .63
$ .46
$ .96
$ .04
$ .75
$ .87½
$ .09
$ .24
$ .40

21. Write in figures:

Six dollars four cents.
Eighteen dollars twenty cents.
Ninety-nine cents.
Thirteen cents.
Forty-two cents.
Forty-two dollars.
Sixty-two and a half cents.

4. $ 17.07 – $ 8.09 = ?
5. $ 28.02 – $ 13.07 = ?
6. $ 20.25 – $ 12.87 = ?
7. $ 70.05 × 2 = ?
8. $ 50.70 × 3 = ?
9. 507 × $ .04 = ?
10. 750 × $ .05 = ?
11. $ 95.92 ÷ $ .08 = ?
12. ⅛ of $ 35.17 = ?
13. $ 51.77 ÷ 8 = ?
14. $ 21.53 ÷ 8 = ?
15. $ 22.09 ÷ 8 = ?
16. $ 84.56 ÷ $ .08 = ?
17. ⅛ of $ 53.88 = ?
18. ⅛ of $ 10.54 = ?
19. ⅛ of $ 29.41 = ?
20. $ 59.84 ÷ $ .08 = ?

Make problems for the following:

21. The difference between $ 24.02 and $ 13.05.
22. $ 16.04 × 4.
23. ⅐ of $ 67.39.
24. $ 54.24 ÷ $ .08.

97. 1. Write in figures and add:

Forty-three dollars five cents.
Nine dollars twenty-four cents.
Seventeen cents.
Two dollars thirty-seven cents.
Sixteen cents.
Two cents.
Eighteen cents.

2. $ 15.12 + $ 6.41 + $ .13 + $ .75 + $ 13 + $ 7.23 + $ .12 = ?
3. $ 13.19 + $ .02 + $ 25.03 + $ .14 + $ 6.08 + $ 1.16 = ?
4. $ 12.25 – $ 8.72 = ?
5. $ 48.10 – $ 9.37 = ?
6. $ 72.06 – $ 18.07 = ?
7. $ 70.05 × 6 = ?

8. $ 50.70 × 7 = ?
9. 507 × $ .08 = ?
10. 750 × $ .09 = ?
11. $ 68.78 ÷ 8 = ?
12. $ 34.35 ÷ 8 = ?
13. $ 69.28 ÷ 8 = ?
14. $46.31 ÷ 8 = ?
15. $ 50.72 ÷ $ .08 = ?
16. $ 76.18 ÷ $ .08 = ?
17. $ 42.64 ÷ $ .08 = ?
18. $\frac{1}{8}$ of $ 36.07 = ?
19. $\frac{1}{8}$ of $ 43.07 = ?
20. $\frac{1}{8}$ of $ 66.04 = ?

Make problems for the following:

21. $ 42.42 − $ 6.87.
22. $\frac{1}{8}$ of $ 96.12.
23. 408 × $ .03.
24. $ .12 + $ 1.25 + $ .43 + $ .17.

98. 1. Write in figures and add:

Six dollars eighty-seven cents.
Twelve dollars twenty-five cents.
Twenty-one dollars three cents.
Five dollars sixteen cents.
Twenty-seven cents.
Four cents.
Seven dollars thirteen cents.

2. $ 14.25 + $ 7.16 + $ 8.21 + $ 25.64 + $ 13.02 + $ 35 = ?
3. $ 25.17 + $ 6 + $ 42 + $ 1.18 + $ .06 + $ .12 = ?
4. From thirty dollars take 4 cents.
5. What is the difference between sixty dollars six cents and six dollars sixty cents?

6. $24 − $15.87 = ?
7. $20.60 × 5 = ?
8. $60.20 × 3 = ?
9. $620 × $.02 = ?
10. 206 × $.04 = ?
11. $19.31 ÷ 8 = ?
12. $78.57 ÷ 8 = ?
13. $74.70 ÷ 8 = ?
14. $39.33 ÷ 8 = ?
15. 1/9 of $74.09 = ?
16. 1/9 of $59.03 = ?
17. 1/9 of $28.15 = ?
18. $51.12 ÷ $.09 = ?
19. $31.86 ÷ $.09 = ?
20. $84.51 ÷ $.09 = ?

Make problems for the following:

21. $40 − $4.45.
22. 1/9 of $98.24.
23. 576 × $.09.
24. $.42 + $.75 + $2.50 + $87.

99. 1. Write in figures and add:

Three dollars nineteen cents.
Twenty-seven dollars twenty-five cents.
Four dollars sixteen cents.
Two dollars eighty-four cents.
Seven cents.
One dollar ninety-one cents.
Four dollars twelve cents.

2. $46.27 + $3.15 + $12.08 + $1.27 + $31.06 + $.91 + $.07 = ?

3. $25.18 + $7.04 + $13.26 + $1.47 + $2.18 + $41.02 + $.83 + $.06 = ?

4. $ 28.12 − $ 19.07 = ?
5. $ 14.26 − $ 8.79 = ?
6. $ 42 − $ 37.16 = ?
7. $ 20.60 × 9 = ?
8. $ 60.20 × 3 = ?
9. 620 × $ .02 = ?
10. 602 × $ .04 = ?
11. $ 46.27 ÷ 9 = ?
12. $ 13.94 ÷ 9 = ?
13. $ 76.71 ÷ 9 = ?
14. $ 38.32 ÷ 9 = ?
15. ⅑ of $ 33.45 = ?
16. ⅑ of $ 75.24 = ?
17. ⅑ of $ 34.37 = ?
18. $ 78.75 ÷ $ .09 = ?
19. $ 86.67 ÷ $ .09 = ?
20. $ 77.58 ÷ $ .09 = ?

Make problems for the following:

21. The difference between eight dollars and eight cents.

22. The sum of forty-two dollars five cents and eighty-nine dollars.

23. $ 46.05 × 6.

24. $ 40.23 ÷ $ .09.

100. 1. Write in figures and add:

Eighteen dollars twenty-five cents.
Four dollars seven cents.
Twenty-six dollars thirteen cents.
Four dollars seventeen cents.
Eight dollars twelve cents.
Twenty dollars fourteen cents.
Thirty-eight cents.
Sixty cents.

2. $ 17.82 + $ 6.03 + $ 24.12 + $ 2.19 + $ 7 + $ 36.24 + $ .75 + $ .62 = ?

3. \$ 17.82 + \$ 6.03 + \$ 24.12 + \$ 2.19 + \$ 7 + \$ 36.24 + \$ .75 + \$ .62 = ?

4. \$ 7.50 − \$ 6.25 = ?
5. \$ 34.25 − \$ 7.32 = ?
6. \$ 8.45 − \$ 2.67 = ?
7. \$ 30.09 × 4 = ?
8. \$ 90.30 × 2 = ?
9. 390 × \$ .03 = ?
10. 903 × \$ .05 = ?
11. \$ 90.03 × 8 = ?
12. \$ 30.90 × 6 = ?
13. 930 × \$ .07 = ?
14. 309 × \$ .09 = ?
15. \$ 85.03 ÷ 9 = ?
16. \$ 89.76 ÷ 9 = ?
17. \$ 22.18 ÷ 9 = ?
18. \$ 65.68 ÷ 9 = ?
19. \$ 16.91 ÷ 9 = ?
20. \$ 82.09 ÷ 9 = ?

Make problems for the following:

21. \$ 10 − \$ 4.35.
22. \$ 50.46 − \$ 2.84.
23. \$ 40 − \$ .40.
24. \$ 864 ÷ \$ 9.

101. 1. Write in figures and add:

Sixty-five dollars fifteen cents.
Three dollars twenty-seven cents.
Sixteen dollars four cents.
Twenty-five cents.
One dollar eighty-three cents.
Fifteen dollars seven cents.
Two dollars fourteen cents.
Thirty cents.

2. \$ 63.12 + \$ 2.10 + \$ 5.36 + \$ 12.24 + \$ .03 + \$ 6.11 + \$ .27 + \$ 15.48 = ?

3. \$ 75.62 + \$ 8.03 + \$ 14.96 + \$ .87 + \$ 49.36 = ?

4. $\$86.49 - \$2.87 = ?$
5. $\$62 - \$47.18 = ?$
6. $\$61.61 - \$6.16 = ?$
7. $\$80.04 \times 4 = ?$
8. $\$40.80 \times 5 = ?$
9. $804 \times \$.02 = ?$
10. $480 \times \$.03 = ?$
11. $\$40.08 \times 8 = ?$
12. $\$80.40 \times 9 = ?$
13. $408 \times \$.06 = ?$
14. $840 \times \$.07 = ?$
15. $\$78.09 \div 9 = ?$
16. $\$24.08 \div 9 = ?$
17. $\$57.09 \div 9 = ?$
18. $\$62.03 \div 9 = ?$
19. $\$756 \div \$9 = ?$
20. $\frac{1}{9}$ of $\$405 = ?$

Make problems for the following:

21. $508 \times \$.09$.
22. $\$64.30 \times 8$.
23. $\$396 \div \$9$.
24. $\frac{1}{9}$ of $\$837$.

SECTION VIII

READING AND WRITING NUMBERS

102. 1. Read these numbers:

4,008	6,040	7,059	6,843
5,000	5,270	3,809	9,999

2. Tell what a figure in each of the first four places represents, beginning at the right.

3. Count by thousands to ten thousand.

4. Write nine thousand in figures. Write ten thousand in figures.

5. How many figures are required to write nine thousand? ten thousand?

6. Count by ten-thousands from ten thousand to one hundred thousand.

7. Write those numbers in figures.

8. How many figures are required to write one hundred thousand?

9. How many figures must always follow the thousands' place?

The first three places at the right are called the UNITS' PERIOD. *The three places used in writing thousands are called the* THOUSANDS' PERIOD.

10. Count by hundreds of thousands to nine hundred thousand.

11. How many are nine hundred thousand and one hundred thousand?

Ten hundred thousand is called ONE MILLION.

The third period is called the MILLIONS' PERIOD.

In writing numbers the periods may be separated by commas. Placing commas to separate the periods is called POINTING OFF *numbers.*

12. Read these numbers:

80,006
80,600
80,060
75,240
33,175
91,080
83,005
46,701
3,200
15,061
42,008
31,020
59,009
99,999
81,000
50,000
8,003
30,003
17,001
19,009

13. Read these numbers:

864,275
593,084
804,110
725,046
800,204
300,450
763,097
509,080
700,007

14. Read these numbers:

860,001
1,003,250
5,068,075
2,084
19,018,053
6,053,975
203,029,054
50,000,000
600,000
90,000
855,002
9,009,009

15. Copy these numbers, point them off, and read them:

406080
975104
82040
756010
33300
1842975
21605080
3905059
72165804
90090090
9019091
16087780
43260062
51211
705030

16. Write in figures:

Nine hundred thousand, eighty-four.
Seventy-five thousand, ninety-nine.
Eight million, sixty-four thousand, seventeen.
Forty-six million, two hundred thirty thousand, ninety.
Seventeen thousand, one hundred eleven.
Ninety-eight million, ninety thousand, eight.
Six hundred seventy-five million, eight hundred forty-two thousand, nine hundred eleven.
One million, one thousand, one.
Seventy thousand, sixty-eight.
Five hundred eight.
Five thousand, eight.
Five million, eight.

103. 1. Read these amounts:

$ 406.30
$ 7.50
$ 418.09
$ 304.06
$ 75.75
$ 18.20

2. Write in figures:

Seven hundred eight dollars, thirty-seven cents.
Nine hundred twenty-three dollars.
Eighteen dollars, sixty cents.
Four hundred dollars, nine cents.
Nine dollars, eighty-eight cents.
Sixty-two cents.

3. In writing United States money, where is the point placed?

4. In writing several amounts under each other, where are the points placed in reference to each other?

In writing United States money with the point and dollar sign, the UNIT *is* ONE DOLLAR.

If smaller amounts less than one dollar are written without the point and sign, the unit is one cent.

If these amounts are added and come to more than one dollar, the unit may be changed to one dollar by pointing off two places for cents and prefixing the dollar sign.

The point used between dollars and cents is called a decimal point, and is like a period. The point used between the periods of numbers of more than three figures is like a comma.

In writing United States money, the first place to the left of the decimal point is the units' place.

5. Read these amounts:

$ 4,032.06
$ 2,165.92
$ 40,007.08
$ 83,000.06
$ 5,125.70
$ 9,020.20
$500.82
$ 4,250.40
$ 6,250.07
$ 582.00
$ 7,030.84
$ 6,290.29

6. Write in figures:

Seven thousand one dollars, eighty-two cents.
Sixteen dollars, ninety cents.
Eighteen thousand five hundred dollars, fifty-four cents.
Six hundred forty dollars, seventy-two cents.
Seventy-five thousand seventy-five dollars, seventy-five cents.
Eight thousand dollars.
Fourteen thousand eight hundred dollars, seventy cents.
Eighty-four cents.

SECTION IX

MULTIPLICATION

104. *Finding the sum of equal numbers is called* MULTIPLICATION.

The number multiplied is called the MULTIPLICAND.

The number which shows how many times the multiplicand is taken is called the MULTIPLIER.

The result is called the PRODUCT.

1. 4 multiplied by 10 is how many? 8 multiplied by 10 is how many?

2. Write 46 ten times, and add them. What is the result?

3. Find the sum of any ten equal numbers. How does the result compare in appearance with one of the numbers?

4. If a cipher is annexed to any number, what does it do to the number?

5. What is 12 × 10? 11 × 10? 20 × 10? 16 × 10? 82 × 10? 21 × 10? 38 × 10? 52 × 10?

6. If you multiply a number by 10, and that result by 3, by what number do you multiply the first number?

7. If you multiply a number by 4, and that result by 10, by what number do you multiply it?

a	*b*
463	463
6	60
2778	27,780

8. In example *a*, by what number is 463 multiplied? in example *b*?

9. Compare the results.

Every multiple of 10 *ends in* 0. *If the cipher is cut off, the result is one tenth of the number. To multiply by a multiple of* 10, *multiply first by one tenth of the number, then annex the cipher to the result.*

10. Multiply:

875	963	412	728	643	195
× 20	× 20	× 20	× 30	× 30	× 30

11. Multiply:

964	803	725	796	802	354
× 40	× 40	× 40	× 50	× 50	× 50

12. Multiply:

437	658	902	873	912	654
× 60	× 60	× 60	× 70	× 70	× 70

13. Multiply:

736	942	851	965	384	721
× 80	× 80	× 80	× 90	× 90	× 90

14. Multiply:

$ 87.56	$ 43.92	$ 87.01
× 20	× 20	× 20

15. Multiply:

$ 62.07	$ 49.83	$ 51.08
× 30	× 30	× 30

16. Multiply:

$70.09	$68.53	$21.47
× 40	× 40	× 40

17. Multiply:

$93.75	$68.24	$90.01
× 50	× 50	× 50

18. Multiply:

$52.08	$93.54	$71.66
× 60	× 60	× 60

19. Multiply:

$84.27	$96.32	$51.08
× 70	× 70	× 70

20. Multiply:

$76.04	$39.52	$80.98
× 80	× 80	× 80

21. Multiply:

$90.10	$72.63	$58.64
× 90	× 90	× 90

105. 1. Build the table of 11's either by adding 11's to 110 or by multiplying 11 by the numbers from 2 to 10.

2. Build the table of 12's, either by adding 12's to 120 or by multiplying 12 by the numbers from 2 to 10.

3. Multiply 11 by 11.

4. Multiply 12 by 11.

5. Multiply 12 by 12.

6. $8 \times 11 = ?$ $4 \times 11 = ?$ $10 \times 11 = ?$
$6 \times 11 = ?$ $5 \times 11 = ?$ $3 \times 11 = ?$
$9 \times 11 = ?$ $2 \times 11 = ?$ $7 \times 11 = ?$
$1 \times 11 = ?$ $12 \times 11 = ?$ $11 \times 11 = ?$

7. $8 \times 12 = ?$ $5 \times 12 = ?$ $7 \times 12 = ?$
$9 \times 12 = ?$ $6 \times 12 = ?$ $3 \times 12 = ?$
$2 \times 12 = ?$ $10 \times 12 = ?$ $4 \times 12 = ?$
$1 \times 12 = ?$ $11 \times 12 = ?$ $12 \times 12 = ?$

8. Multiply:

$$\begin{array}{rrr} 8756 & 9432 & \$58.02 \\ \underline{\times 11} & \underline{\times 11} & \underline{\times 11} \end{array}$$

9. Multiply:

$$\begin{array}{rrr} 80{,}375 & \$910.46 & \$714.69 \\ \underline{\times 11} & \underline{\times 11} & \underline{\times 11} \end{array}$$

10. Multiply:

$$\begin{array}{rrr} 7965 & 8423 & \$13.95 \\ \underline{\times 12} & \underline{\times 12} & \underline{\times 12} \end{array}$$

11. Multiply:

$$\begin{array}{rrr} \$970.65 & 48{,}123 & \$420.67 \\ \underline{\times 12} & \underline{\times 12} & \underline{\times 12} \end{array}$$

12. Multiply:

$$\begin{array}{rrrr} 9842 & 3576 & 5983 & 7642 \\ \underline{\times 11} & \underline{\times 11} & \underline{\times 12} & \underline{\times 12} \end{array}$$

106. 1. Ten times a number plus three times the number is how many times the number?

2. Twenty times a number plus six times the number is how many times the number?

3. Fifty times a number plus nine times the number is how many times the number?

a	*b*	*c*
542	843	725
13	26	59
1626	5058	6525
542	1686	3625
7046	12918	42775

4. In example *a* by what number is 542 first multiplied?

5. By what number is it next multiplied?

6. In multiplying by 1, what is the result of placing the product one place to the left?

7. What is the result of adding the products by three and by ten?

8. 7046 is how many times 542?

9. If a railroad train goes 542 miles each day, how far does it go in 13 days?

10. Examine examples *b* and *c*, and tell how the results are obtained.

11. Multiply:

246	783	951	724	963	518
× 24	× 24	× 24	× 56	× 56	× 56

12. Multiply:

875	$6.92	431	916	527	$8.43
× 78	× 78	× 78	× 39	× 39	× 39

13. Multiply:

845	729	$6.31	962	$8.13	547
× 54	× 54	× 54	× 76	× 76	× 76

14. Multiply:

572	$8.36	914	975	$6.32	$418
× 38	× 38	× 38	× 92	× 92	× 92

15. Multiply:

705	602	$1.08	$304	906
× 23	× 23	× 23	× 23	× 23

16. Multiply:

804	$6.07	109	$302	509
× 59	× 59	× 59	× 59	× 59

17. Multiply:

608	504	$907	203	$7.01
× 64	× 64	× 64	× 64	× 64

18. Multiply:

$8.02	306	$508	107	$9.04
× 78	× 78	× 78	× 78	× 78

107. 1. If a number is multiplied by 10, and that result by 10, by what number is the number multiplied?

2. What is the effect of annexing one cipher to a number?

3. What is the effect of annexing two ciphers?

4. What would be the effect of multiplying a number by 2 and annexing two ciphers to the result?

5. Multiply:

18,069	28,914	84,728	58,092
× 200	× 300	× 400	× 500

6. Multiply:

84,672	51,863	58,729	80,219
× 600	× 700	× 800	× 900

7. Multiply:

23,457	51,036	90,536	37,614
× 200	× 300	× 400	× 500

8. Multiply:

93,051	29,407	61,043	75,634
× 600	× 700	× 800	× 900

108. 1. Twenty things are called a *score.* How many things are there in 876 score?

2. A fence 359 feet long is how many inches long?

3. 576 dozen are how many things?

4. If a railroad train goes 500 miles a day, how far does it go in 287 days?

5. At $368 each, what is the value of 79 horses?

6. At $46 each, what is the value of 864 desks?

7. At $96.87 each, what is the value of 40 wagons?

8. At $5.75 each, what is the value of 700 books?

9. What is the cost of 300 bicycles at $62 each?

10. A barrel of flour weighs 196 pounds; what is the weight of 84 barrels?

11. There are 52 weeks in a year; how many weeks are there in 467 years?

12. At $ .75 a pound, what is the cost of 263 pounds of candy?

109. Multiply:

(1)	(2)	(3)	(4)	(5)
74,682	59,072	34,672	3972	72,013
× 763	× 804	× 506	× 4800	× 709
(6)	(7)	(8)	(9)	(10)
90,357	84,613	95,018	6842	46,958
× 637	× 408	× 605	× 5300	× 5800
(11)	(12)	(13)	(14)	(15)
84,026	67,324	98,476	7539	73,021
× 259	× 702	× 901	× 3500	× 805
(16)	(17)	(18)	(19)	(20)
91,375	85,109	4862	7384	31,027
× 592	× 207	× 9700	× 2600	× 640
(21)	(22)	(23)	(24)	(25)
18,409	73,642	7359	9562	48,695
× 418	× 309	× 7900	× 6200	× 632
(26)	(27)	(28)	(29)	(30)
75,265	81,095	8654	59,846	17,032
× 841	× 903	× 8400	× 974	× 2300

SECTION X

ORAL EXERCISES

110. 1. $6 \times 11 = ?$ $11 \times 4 = ?$ $9 \times 11 = ?$
$7 \times 12 = ?$ $5 \times 11 = ?$ $12 \times 10 = ?$
$12 \times 3 = ?$ $12 \times 6 = ?$ $7 \times 11 = ?$

2. $3 \times 11 = ?$ $12 \times 12 = ?$ $11 \times 8 = ?$
$6 \times 12 = ?$ $11 \times 7 = ?$ $12 \times 5 = ?$
$12 \times 9 = ?$ $10 \times 12 = ?$ $11 \times 12 = ?$

3. $3 \times 12 = ?$ $11 \times 6 = ?$ $2 \times 12 = ?$
$12 \times 8 = ?$ $4 \times 12 = ?$ $11 \times 2 = ?$
$12 \times 12 = ?$ $10 \times 11 = ?$ $12 \times 11 = ?$

4. $12 \times 1 = ?$ $11 \times 11 = ?$ $8 \times 11 = ?$
$2 \times 11 = ?$ $8 \times 12 = ?$ $12 \times 7 = ?$
$5 \times 12 = ?$ $12 \times 2 = ?$ $9 \times 12 = ?$

5. $12 \times 4 = ?$ $12 \times 11 = ?$ $11 \times 5 = ?$
$11 \times 3 = ?$ $11 \times 10 = ?$ $1 \times 12 = ?$
$11 \times 9 = ?$ $11 \times 1 = ?$ $11 \times 12 = ?$

111. 1. $22 \div 11 = ?$ $12 \div 1 = ?$ $132 \div 11 = ?$
$36 \div 3 = ?$ $84 \div 12 = ?$ $110 \div 10 = ?$
$66 \div 11 = ?$ $96 \div 8 = ?$ $77 \div 7 = ?$

2. $60 \div 5 = ?$ $120 \div 10 = ?$ $108 \div 12 = ?$
$33 \div 3 = ?$ $11 \div 11 = ?$ $99 \div 9 = ?$
$72 \div 12 = ?$ $55 \div 11 = ?$ $88 \div 11 = ?$

3. $144 \div 12 = ?$ $121 \div 11 = ?$ $11 \div 1 = ?$
$44 \div 4 = ?$ $132 \div 12 = ?$ $99 \div 11 = ?$
$72 \div 6 = ?$ $48 \div 4 = ?$ $24 \div 2 = ?$

4. $88 \div 8 = ?$ $110 \div 10 = ?$ $108 \div 9 = ?$
$96 \div 12 = ?$ $60 \div 12 = ?$ $44 \div 11 = ?$
$33 \div 11 = ?$ $120 \div 12 = ?$ $12 \div 12 = ?$

5. $36 \div 12 = ?$ $66 \div 11 = ?$ $24 \div 12 = ?$
$84 \div 7 = ?$ $48 \div 12 = ?$ $77 \div 11 = ?$
$55 \div 5 = ?$ $22 \div 2 = ?$

112. 1. If a stick is 6 feet long, how many inches long is it?

2. How many eggs are 8 dozen?

3. How many square inches are a square foot?

4. At 11 cents each, what is the cost of 9 slates?

5. If a girl can knit 11 scallops in an hour, how many would she knit in 4 hours?

6. How many dozen are 84 lemons?

7. If 108 eggs are packed in boxes, one dozen in each box, how many boxes are there?

8. If a schoolroom contains 4 classes, 11 pupils in each class, how many pupils are there in the room?

9. At the rate of 11 miles an hour, how far would a boat go in 7 hours?

10. If a stick is 60 inches long, how many feet long is it?

11. A boy earned 12 cents a day for 6 days; how much did he earn?

12. How many months are there in 10 years?

13. 132 months are how many years?

14. How many months old is a boy who is just 12 years old?

15. A man sold a dozen bananas for 6 cents each; how much did he receive?

16. At 11 dollars each, what is the cost of a dozen chairs?

17. If a man paid 30 cents for a dozen oranges, and sold them for 3 cents apiece, what did he gain?

18. 11 is what part of 22? of 44? of 33? of 88? of 66? of 99? of 77? of 55? of 110?

19. 12 is what part of 24? of 36? of 60? of 48? of 84? of 108? of 72? of 96?

20. A man divided $120 equally among 10 persons; what did each one receive?

21. If 7 chairs cost $77, what is the cost of 1 chair?

22. If a man earns $96 in 8 weeks, how much is that a week?

23. If a boat sails 66 miles in 6 hours, how much is that an hour?

24. A boy had 72 cents and spent $\frac{1}{6}$ of it for a calendar; what did the calendar cost?

113. 1. In one room are 9 rows of seats, 7 seats in a row, and in another 8 rows of seats, 8 seats in a row. How many more seats in one room than in the other?

2. George bought 9 oranges at 5 cents apiece and had 5 cents left; how much money had he at first?

3. Henry had $1. He bought 7 pencils at 3 cents each, and 4 pads at 10 cents each; how much money had he left?

4. John has 49 cents and his little brother has $\frac{1}{7}$ as many; how many has his little brother?

5. How many square inches in the surface of a desk which is 12 inches long and 10 inches wide?

6. George has 50 cents; how many slates at 6 cents each can he buy, and what will he have left?

7. A family uses $\frac{3}{4}$ of a ton of coal each week; how many tons will it use in 9 weeks?

8. If a family uses half a barrel of flour a month, how long will $4\frac{1}{2}$ barrels last it?

9. If it takes $\frac{1}{4}$ of a yard of edging to trim a doll's apron, how many aprons will $5\frac{1}{4}$ yards trim?

10. Walter traveled 6 hours at the rate of 9 miles an hour, and William traveled 7 hours at the rate of 8 miles an hour. Who traveled farther, and how many miles?

11. What is the difference in area in two rooms, one 8 yards long and 6 yards wide, the other 7 yards square?

12. A man bought 8 chairs for $9 each. For how much must he sell them to gain $8?

13. A dealer sold 3 bushels of potatoes at 30 cents a peck; what did he receive for them?

14. A dealer sold 36 oranges at 30 cents a dozen; what did he receive for them?

15. What is the cost of 3 gallons of milk at 6 cents a quart?

16. What is the cost of 4 yards of molding at 7 cents a foot?

17. What is the cost of a peck of cranberries at 12 cents a quart?

18. How many square yards in a piece of oilcloth 4 yards long and 3 yards wide?

19. How many square feet in an oilcloth 9 feet long and 8 feet wide?

20. How many square yards in an oilcloth which contains 81 square feet?

21. How many square feet in an oilcloth 9 feet long and 7 feet wide? How many square yards?

22. How many square feet in the floor of a room 12 feet long and 9 feet wide? How many square yards?

23. What is the cost of 72 eggs at 20 cents a dozen?

24. What is the selling price of goods bought for $20 and sold to gain $\frac{1}{4}$ of the cost?

114. 1. If anything is divided into two equal parts, what is each part called?

2. If anything is divided into three equal parts, what is each part called?

3. What is each part called if anything is divided into four equal parts? into five? six? seven? eight? nine? ten? eleven? twelve?

4. If one half of anything is taken away, what part is left?

5. If one third of anything is taken away, what part is left?

6. If two thirds of anything is taken away, what part is left?

7. Tell what part is left if each of the following parts is taken away:

One fourth; three fourths; one fifth; two fifths; three fifths; four fifths; one sixth; five sixths; one seventh; five sevenths; three sevenths; six sevenths; two sevenths; four sevenths; one eighth; three eighths; five eighths; seven eighths; one ninth; two ninths; four ninths; five ninths; seven ninths; eight ninths.

8. What is $\frac{1}{2}$ of 8? of 4? of 6? of 12? of 10? of 16? of 20? of 18? of 14? of 24? of 22?

9. If John had 8 miles to walk, how far had he gone when he had gone half way?

10. If Henry had 18 cents and spent $\frac{1}{2}$ of it, what had he left?

11. Jennie had 16 books; she put $\frac{1}{2}$ of them in her bookcase and carried the rest to school; how many did she carry to school?

12. What is $\frac{1}{3}$ of 3? of 9? of 15? of 6? of 21? of 30? of 24? of 12? of 27? of 18? of 33? of 36?

13. If Walter had 12 marbles and put $\frac{1}{3}$ of them into each of 3 boxes, how many were in each box?

14. What part of the marbles were in 2 boxes? How many marbles were in 2 boxes? What is $\frac{2}{3}$ of 12?

15. George had 15 books and carried $\frac{1}{3}$ of them to school; how many did he carry to school? How many did he leave at home?

16. 5 is what part of 15? 10 is what part of 15?

17. A man started to walk 24 miles. When he had gone $\frac{1}{3}$ of the distance, how far had he gone?

18. When he had gone $\frac{2}{3}$ of the distance, how far had he gone?

19. 8 is what part of 24? 16 is what part of 24?

20. Lucy had $ 36 and spent $\frac{2}{3}$ of it; how much money did she spend?

21. Carrie had 18 flowers and gave her teacher $\frac{2}{3}$ of them; how many had she left?

22. Mary had 21 buttonholes to make; when she had made $\frac{2}{3}$ of them, how many had she still to make?

23. Jennie has 27 books, and Carrie has $\frac{2}{3}$ as many; how many has Carrie?

24. Hattie made 30 buttonholes, and Laura made $\frac{2}{3}$ as many; how many did Laura make?

25. If $\frac{1}{3}$ of John's marbles is 12, how many marbles has he?

115. 1. What is $\frac{1}{4}$ of 4? of 12? of 20? of 32? of 16? of 28? of 36? of 40? of 48? of 44? of 24? of 8?

2. What is $\frac{3}{4}$ of 4? of 12? of 20? of 32? of 16? of 28? of 36? of 40? of 48? of 44? of 24? of 8?

3. If a man spent $\frac{1}{4}$ of his money, what part of it had he left?

4. If a boy lost $\frac{3}{4}$ of his marbles, what part of them had he left?

5. A person started on a journey; when he had gone $\frac{3}{4}$ of the distance, what part of the distance remained?

6. A person bought goods and sold them for $\frac{3}{4}$ of the cost; what part of the cost did he lose?

7. $\frac{1}{2}$ of anything is equal to how many fourths of it?

8. If a man sold $\frac{1}{2}$ of his property to one man, and $\frac{1}{4}$ of it to another, what part of it had he left?

9. If $\frac{1}{4}$ of a man's money is $12, what is the whole of it?

10. If $\frac{1}{4}$ of a man's money is $12, what is $\frac{3}{4}$ of it?

11. George rode 24 miles and walked $\frac{3}{4}$ as far; how far did he walk?

12. Henry traveled 36 miles, and John traveled $\frac{3}{4}$ as far; how far did John travel?

13. How much farther did Henry travel than John?

14. Jane had 32 cents and spent $\frac{3}{4}$ of it; what had she left?

15. If Walter started to travel 20 miles, how far has he still to go when he has traveled $\frac{1}{4}$ of it?

16. A man bought goods for $ 28 and sold them so as to gain $\frac{1}{4}$ of the cost; for what did he sell them?

17. A dealer had 2 pecks of onions and sold $\frac{1}{4}$ of them; how many quarts did he sell?

18. How many quarts is $\frac{3}{4}$ of 10 gallons of milk?

19. How many pecks is $\frac{1}{4}$ of 12 bushels of potatoes?

20. How many feet is $\frac{1}{4}$ of 12 yards of cloth?

116. 1. What is $\frac{1}{5}$ of 10? of 5? of 40? of 60? of 45? of 25? of 15? of 55? of 35? of 20? of 50? of 30?

2. What is $\frac{2}{5}$ of 10? of 5? of 40? of 60? of 45? of 25? of 15? of 55? of 35? of 20? of 50? of 30?

3. What is $\frac{3}{5}$ of 10? of 40? of 60? of 5? of 45? of 25? of 15? of 55? of 35? of 20? of 50? of 30?

4. What is $\frac{4}{5}$ of 10? of 40? of 60? of 5? of 45? of 25? of 15? of 55? of 35? of 20? of 50? of 30?

5. If a person sold $\frac{1}{5}$ of his property, what part of it had he left?

6. If a person sold property for $\frac{4}{5}$ of what it cost him, what part of the cost did he lose?

7. If a boy spent $\frac{3}{5}$ of his money, what part of it had he left?

8. If a girl gave $\frac{2}{5}$ of her flowers to her teacher, what part of them had she left?

9. If $\frac{1}{5}$ of Frank's marbles is 4, how many marbles has he?

10. John has 30 marbles; $\frac{1}{5}$ of them are brown, $\frac{2}{5}$ of them are blue, and the rest are red; how many red ones has he?

11. Jennie has 35 pinks; $\frac{2}{5}$ of them are red, and the rest are white; how many of each has she?

12. A man owns 60 acres of land in two parts. One part contains $\frac{3}{5}$ of his land, and the other part $\frac{2}{5}$. How many acres are in each part?

13. A man who owned 50 acres of land sold $\frac{3}{5}$ of it; how many acres had he left?

14. A boy rode 40 miles and walked $\frac{1}{5}$ as far; how far did he walk? How far did he travel?

15. A man traveled 55 miles; $\frac{4}{5}$ of his journey was on land, the rest on water; how far did he travel on land? on water?

16. Carrie spent 25 cents; $\frac{2}{5}$ of it was for a slate and the rest for paper; what did each cost?

17. Morris had $ 45. He put $\frac{4}{5}$ of it in the bank and kept the rest at home; how much did he put in the bank? how much did he keep at home?

18. A man sold property which cost him $ 15, so as to gain $\frac{1}{5}$ of the cost; for what did he sell it?

117. 1. What is $\frac{1}{6}$ of 12? of 18? of 30? of 36? of 24? of 60? of 72? of 48? of 6? of 66? of 42?

2. What is $\frac{5}{6}$ of 12? of 18? of 30? of 36? of 24? of 60? of 72? of 48? of 6? of 66? of 42?

3. If $\frac{1}{6}$ of anything is taken away, what part of it is left?

4. If $\frac{5}{6}$ of anything is taken away, what part of it is left?

5. How many sixths of anything are equal to $\frac{1}{2}$ of it?

6. How many sixths of anything are equal to $\frac{1}{3}$ of it?

7. How many sixths of anything are equal to $\frac{2}{3}$ of it?

8. If a man bought goods for $36 and sold them so as to gain $\frac{1}{6}$ of the cost, how much did he gain? For how much did he sell the goods?

9. If a man bought goods for $60 and sold them for $\frac{5}{6}$ of the cost, for how much did he sell them? How much did he lose? What part of the cost did he lose?

10. A man traveled 72 miles. $\frac{5}{6}$ of his journey was taken in a train, and the rest in a boat; how far did he travel by train? how far by boat?

11. How many days are $\frac{5}{6}$ of 6 weeks?

12. How many quarts are $\frac{5}{6}$ of 9 gallons?

13. How many pecks are $\frac{5}{6}$ of 12 bushels?

14. How many quarts are $\frac{5}{6}$ of 3 pecks?

15. A rose-bush contained 18 roses, and a little girl picked $\frac{1}{6}$ of them; how many did she pick?

16. A bouquet contained 24 flowers. $\frac{1}{6}$ of them were roses, $\frac{1}{6}$ were pinks, and the rest were violets. How many of each were there?

17. A farmer had 54 animals. $\frac{1}{6}$ of them were cows, $\frac{1}{6}$ were horses, $\frac{2}{6}$ were hens, and the rest were sheep. How many of each were there?

18. There were 66 sheep in a flock and $\frac{1}{6}$ of them died; how many were left?

118. 1. What is $\frac{1}{7}$ of 7? of 21? of 35? of 14? of 70? of 49? of 84? of 28? of 42? of 56? of 63?

2. What is $\frac{2}{7}$ of 7? of 21? of 35? of 14? of 70? of 49? of 84? of 28? of 42? of 56? of 63?

3. What is $\frac{3}{7}$ of 7? of 21? of 35? of 14? of 70? of 49? of 84? of 28? of 42? of 56? of 63?

4. What is $\frac{4}{7}$ of 7? of 21? of 35? of 14? of 70? of 49? of 84? of 28? of 42? of 56? of 63?

5. What is $\frac{5}{7}$ of 7? of 21? of 35? of 14? of 70? of 49? of 84? of 28? of 42? of 56? of 63?

6. If a man sold $\frac{5}{7}$ of his property, what part of it had he left?

7. If a boy lost $\frac{1}{7}$ of his marbles, what part of them had he left?

8. If a person starts on a journey, what part of the journey still remains when $\frac{3}{7}$ of it has been traveled?

9. If a man sells goods for $\frac{6}{7}$ of what they cost him, what part of the cost does he lose?

10. How many days are $\frac{3}{7}$ of 8 weeks?

11. If a man starts to travel 49 miles, how far has he gone and how far has he still to go when he has traveled $\frac{4}{7}$ of the distance?

12. A man has 63 sheep and lambs. $\frac{2}{7}$ of them are sheep, and the rest are lambs; how many of each has he?

13. In a box of 84 eggs, $\frac{1}{7}$ of them were found to be broken; how many were broken? what part of them were whole? how many were whole?

14. In a school of 56 pupils, $\frac{1}{7}$ of them were absent; how many were absent? what part of the pupils were present? how many pupils were present?

15. A rose-bush contained 42 roses, and a lady picked $\frac{2}{7}$ of them; how many did she pick?

16. In a school of 70 pupils, $\frac{2}{7}$ of them were in the first class; how many were in the first class?

17. In a class of 28 pupils, $\frac{1}{7}$ of them were not promoted; how many were not promoted?

18. How many were promoted?

119. 1. What is $\frac{1}{8}$ of 24? of 40? of 16? of 48? of 80? of 96? of 32? of 8? of 56? of 88? of 72? of 64?

2. What is $\frac{3}{8}$ of 24? of 40? of 16? of 48? of 80? of 96? of 32? of 8? of 56? of 88? of 72? of 64?

3. What is $\frac{5}{8}$ of 24? of 40? of 16? of 48? of 80? of 96? of 32? of 8? of 56? of 88? of 72? of 64?

4. What is $\frac{7}{8}$ of 24? of 40? of 16? of 48? of 80? of 96? of 32? of 8? of 56? of 88? of 72? of 64?

5. If $\frac{1}{8}$ of anything is taken away, what part of it is left?

6. If $\frac{7}{8}$ of anything is taken away, what part of it is left? $\frac{3}{8}$? $\frac{5}{8}$?

7. How many eighths are equal to $\frac{1}{2}$? to $\frac{1}{4}$? to $\frac{3}{4}$?

8. A boy started to ride 32 miles on his bicycle; when he had gone $\frac{7}{8}$ of the distance, how far had he still to go?

9. George had 96 books in two bookcases; $\frac{5}{8}$ of them were in one case, and $\frac{3}{8}$ in another; how many books were in each case?

10. John traveled 56 miles; he rode $\frac{7}{8}$ of the distance and walked the rest; how far did he ride? How far did he walk?

11. Annie baked 64 loaves of bread in 8 weeks; how many loaves was that for each week?

12. Charlie had 40 cents, and Sydney had 72 cents. Charlie spent $\frac{3}{8}$ of his money, and Sydney spent $\frac{5}{8}$ of his; how much had each left?

13. In a bouquet of 24 pinks, $\frac{5}{8}$ of them were white, and the rest were red; how many were there of each?

14. In a school are 88 pupils; $\frac{5}{8}$ of them are boys, and the rest are girls; how many of each are there?

15. In a case containing 48 eggs, $\frac{1}{8}$ of them were broken; how many were whole?

16. Jessie had 16 flowers; she gave $\frac{1}{8}$ of them to her sister, $\frac{2}{8}$ of them to her teacher, $\frac{3}{8}$ of them to her mother, and kept the rest; how many did she keep?

17. A storekeeper had a bunch of 80 bananas; he sold $\frac{1}{8}$ of them to each of 5 men; how many were left on the bunch?

18. A farmer has 32 sheep and $\frac{5}{8}$ as many cows; how many cows has he?

120. 1. What is $\frac{1}{9}$ of 27? of 45? of 81? of 18? of 36? of 72? of 54? of 90? of 108? of 63? of 99?

2. What is $\frac{4}{9}$ of 27? of 45? of 81? of 18? of 36? of 72? of 54? of 90? of 108? of 63? of 99?

3. What is $\frac{5}{9}$ of 27? of 45? of 81? of 18? of 36? of 72? of 54? of 90? of 108? of 63? of 99?

4. What is $\frac{7}{9}$ of 27? of 45? of 81? of 18? of 36? of 72? of 54? of 90? of 108? of 63? of 99?

5. What is $\frac{8}{9}$ of 27? of 45? of 81? of 18? of 36? of 72? of 54? of 90? of 108? of 63? of 99?

6. If $\frac{2}{9}$ of anything is taken away, what part of it is left?

7. If a man spends $\frac{4}{9}$ of his money, what part of it has he left?

8. If a boy loses $\frac{2}{9}$ of his marbles, what part of them has he left?

9. If a lady gave away $\frac{1}{9}$ of her money, what part of it had she left?

10. If a man paid $\frac{2}{9}$ of his money for a wagon and $\frac{3}{9}$ of it for a horse, what part of it had he left?

11. How many ninths are equal to $\frac{1}{3}$? to $\frac{2}{3}$?

12. George wishes to buy a bicycle that costs $45; he has $\frac{7}{9}$ of $45; how much more money does he need?

13. Henry has 63 books, and John has $\frac{5}{9}$ as many; how many has John?

14. Mr. Brown has $81; if he pays $\frac{5}{9}$ of it for a bookcase and the rest for a table, what does the table cost?

15. Joseph walked $\frac{4}{9}$ of 27 miles; how far did he walk?

16. Henry started to ride 36 miles on his bicycle; when he had gone $\frac{8}{9}$ of the distance he punctured his tire and walked the rest of the way. How far did he ride? How far did he walk?

17. Charlie has 90 cents; $\frac{5}{9}$ of it is in ten-cent pieces and the rest in five-cent pieces; how many of each has he?

18. James had 54 cents, and Henry had 108 cents. James spent $\frac{3}{9}$ of his money, and Henry spent $\frac{6}{9}$ of his; how much did each spend? How much had each left?

19. A storekeeper had a cheese weighing 18 pounds; he sold $\frac{2}{9}$ of it to each of 2 men; how many pounds of cheese had he left?

20. A florist had 99 pinks and 72 roses. He sold $\frac{7}{9}$ of his pinks and $\frac{8}{9}$ of his roses; he then gave all the rest to his little daughter. How many pinks and how many roses did he give her?

121. 1. A boy started to walk 18 miles; when he had gone half the distance, how many miles had he still to walk?

2. A farmer has 36 cows and sheep. $\frac{3}{4}$ of them are sheep, and the rest are cows; how many of each has he?

3. A man traveled 45 miles. $\frac{4}{5}$ of the distance he rode in a railroad car, the rest in a carriage; how far did he ride in the car? in the carriage?

4. A little girl has 28 flowers. $\frac{4}{7}$ of them are roses, the rest are pinks; how many of each has she?

5. A storekeeper sold $\frac{5}{6}$ of the bananas from a bunch containing 72; how many bananas were left?

6. A farmer sold $\frac{1}{3}$ of his flock of 36 sheep; how many sheep had he left?

7. In a school of 108 pupils $\frac{5}{9}$ of them were boys and the rest were girls; how many of each were there?

8. In an orchard were 96 trees. $\frac{5}{8}$ of them were apple trees and the rest were pear trees; how many of each were there?

9. If 8 books cost $32, what is the cost of 1? of 6?

10. If I can walk 18 miles in 6 hours, what is the rate per hour? How far could I walk in 5 hours?

11. If 1 man could build a wall in 40 days, how long would 5 men need to build it?

12. If 6 men could do a piece of work in 9 days, how long would it take 1 man?

13. If 6 men could do a piece of work in 12 days, how long would it take 1 man to do it? 9 men? 8 men?

14. How many benches are needed to seat 60 persons, if 5 persons can be seated on each bench?

15. If 6 persons can be seated on each bench, how many persons can be seated in a hall containing 8 rows of benches, 10 benches in each row?

16. What is the area of a walk 40 feet long and 8 feet wide?

17. What is the area of a floor 12 feet long and 11 feet wide?

18. Which floor has the greater area, that of a room 11 feet long and 9 feet wide or that of a room 12 feet long and 8 feet wide?

19. How many square feet in the floor of a room 12 feet long and 10 feet wide?

20. How many square yards are equal to 99 square feet?

21. How many square yards are equal to 72 square feet?

22. How many square feet are in the floor of a room 12 feet long and 9 feet wide? How many square yards?

23. How many square feet are in the floor of a room 10 feet long and 9 feet wide? How many square yards?

24. How many square yards are in the floor of a room 11 feet long and 9 feet wide?

SECTION XI

WRITTEN EXERCISES

122. 1. Write in figures and add:

Four hundred dollars, eighty-six cents.
Seventy-five dollars, three cents.
Two hundred ninety-six dollars, forty cents.
Two thousand, eight hundred forty dollars, four cents.
Seven hundred fifty-six dollars, thirty-eight cents.
Ninety dollars, nine cents.
Seven hundred eighty-four dollars, thirty-two cents.
Five dollars.

2. Write in figures and add:

Eight million, thirty thousand, two hundred nine.
Forty-six thousand, eight hundred seventy-four.
Five million, five.
Forty-six thousand, eight hundred thirty-one.
Nine hundred seventy-five thousand, nine hundred sixty-eight.
Eighty thousand, nine.
Four thousand, three hundred eighty.
Seven million, ninety-two thousand, eighty-seven.

Subtract:	(3)	(4)
	809,206	$ 750.04
	12,597	29.32

Multiply:	(5)	(6)
	8406	79,253
	× 402	× 4200

7. 960,527 × 11 = ?

8. 730,897 ÷ 2 = ?

9. $ 8592.16 ÷ 2 = ?

10. John had $ 30 and spent $ 27.99; how much had he left?

11. One fourth of my money is $ 125.25; how much money have I?

12. How many square feet are in a walk which is 64 feet long and 3 feet wide?

123. 1. 465,070 + 29,876 + 403,092 + 78,609 + 8769 + 428,972 + 83,684 + 9999 = ?

2. $ 403.75 + $ 8.62 + $ 729.87 + $ 38.63 + $ 7002.86 + $ 290.29 + $ 19.29 + $ 7.87 = ?

3. $ 860.09 − $ 239.08 = ?

4. 40,010 − 2965 = ?

5. $ 93.75 × 350 = ?

6. 24,086 × 503 = ?

7. 38,104 × 11 = ?

8. $ 26,431.54 ÷ $ .02 = ?

9. $ 42.23 ÷ 3 = ?

10. A man bought a lot for $ 1937, built a house on it for $ 4625, and sold the whole for $ 10,000. What did the property cost him, and what did he gain?

11. A man bought a horse for $ 275 and sold it so that he gained $\frac{1}{5}$ of what it cost him; how much did he gain? for how much did he sell it?

12. How many square inches are in the surface of a table which is 48 inches long and 36 inches wide?

124. 1. Write in figures and add:

Nine million, six hundred thousand, seven hundred twenty-five.

Eighty-two thousand, forty-nine.

Seven thousand, nine hundred sixty-eight.
Two hundred three thousand, thirty.
Seven million, nine hundred sixty-seven.
Three hundred eighty-four thousand, ninety-nine.
Ninety thousand, nine hundred eighty-six.
Four hundred three thousand, two hundred seventy-five.

2. 46,802 + 725,986 + 39,728 + 642 + 73 + 9986 + 43,875 + 2978 = ?

3. $830.75 – $96.89 = ?

4. 80,040 – 7327 = ?

5. 26,048 × 716 = ?

6. $39.75 × 671 = ?

7. $846.03 × 12 = ?

8. 859,041 ÷ 3 = ?

9. $587.06 ÷ 3 = ?

10. $92.54 ÷ $.03 = ?

11. A man bought a lot for $720 and sold it so as to gain $\frac{1}{8}$ of the cost; what was the gain? what was the selling price?

12. How many square feet in the floor of a room 18 feet long and 12 feet wide?

125. 1. Write in figures and add:

Four million, eighty thousand, one.
Sixty-five thousand, nine hundred seventy-five.
Eight hundred two thousand, three hundred sixty.
Four million, twenty-five.
Eight hundred ninety-six thousand, seven hundred eighty-four.
Ninety-four thousand, three hundred ninety-seven.
Six hundred thousand, eighty.
Sixty thousand, five.

2. 46,275 + 5083 + 21,975 + 8326 + 975 + 4020 + 38,099 + 9999 = ?

3. $32.01 – $9.63 = ?

4. 840,096 – 233,187 = ?

5. $39.84 × 980 = ?

6. 27,560 × 89 = ?

7. 25,971 × 12 = ?

8. 73,612 ÷ 3 = ?

9. $62.97 ÷ $.03 = ?

10. If a man saves $3 a week, how many weeks will it take him to save $975?

11. If I buy land for $4500, at what price must I sell it to gain $1500?

12. How many square feet are there in a lot of land 150 feet long and 84 feet wide?

126. 1. Write in figures and add:

Four thousand two dollars and seventy-five cents.
Six hundred eighty-three dollars, three cents.
Twenty-five dollars, one cent.
Five thousand dollars.
Fifty dollars, eighty-seven cents.
Four hundred ninety-six dollars, twenty-nine cents.
Seventy-five dollars, eighty-four cents.
Three hundred thirty-eight dollars, ninety-five cents.

2. 46,021 + 3975 + 843 + 9684 + 729 + 6485 + 297 + 48,936 = ?

3. 4025 – 3276 = ?

4. $5027.37 – $909 = ?

5. Multiply:

180	6900	840
140	320	3600

6. $86{,}372 \times 11 = ?$

7. $\$9581.04 \div 4 = ?$

8. $745{,}972 \div 4 = ?$

9. $\$3951.48 \div \$.04 = ?$

10. If a walk contains 768 square feet and is 8 feet wide, how long is it?

11. George has 846 books, and Henry has $\frac{1}{9}$ as many; how many have they both?

12. A man who had 465 hens sold $\frac{1}{5}$ of them; how many did he sell? how many had he left?

127. 1. $8{,}062{,}907 + 9{,}075{,}843 + 74{,}306 + 9{,}624{,}728 + 95{,}842 + 8359 + 735{,}864 + 96{,}089 = ?$

2. $\$7508.06 + \$42.97 + \$183.64 + \$97.87 + \$6080.08 + \$90.09 + \$800 + \$46.27 = ?$

3. $6731 - 3071 = ?$

4. $\$46.02 - \$8.73 = ?$

5. $\$463.02 \times 52 = ?$

6. $97{,}085 \times 205 = ?$

7. $91{,}504 \times 11 = ?$

8. $633{,}476 \div 4 = ?$

9. $\$5100.32 \div \$.04 = ?$

10. $1{,}893{,}786 \div 4 = ?$

11. A man had 47 acres of land; he bought 286 acres, then sold 129 acres; how many acres had he then?

12. A square mile contains 640 acres; how many acres are in a quarter of a square mile?

128. 1. Write in figures and add:

Four million, two hundred sixty-eight thousand, nine hundred seventy-five.

Eighty-seven thousand, ninety-six.

Five million, twenty.

Forty-six thousand, eight.

Nine hundred seventy-three thousand, four hundred sixty-two.

Eighty-nine thousand, seven hundred fifty.

Two million, three hundred forty-six thousand, nine hundred seventy-five.

Eighty-nine thousand, two hundred eighty-six.

2. $403.26 + $5000.75 + $846.09 + $38.87 + $.95 + $4206.60 + $495.76 + $864.92 = ?

3. 1206 − 963 = ?

4. $28.06 − $14.39 = ?

5. 75,086 × 463 = ?

6. $390.24 × 634 = ?

7. 57,139 × 12 = ?

8. 635,271 ÷ 5 = ?

9. $1691.80 ÷ $.05 = ?

10. $4946.89 ÷ 5 = ?

11. How many square yards are there in a piece of oilcloth which is 9 yards long and 8 yards wide? how many square feet?

12. A square foot is how many square inches? 55 square feet are how many square inches?

129. 1. 45,621 + 72,846 × 38,973 + 46,295 + 73,849 + 64,287 + 59,364 + 95,728 = ?

2. Write in figures and add:

Forty-six dollars, eighty-four cents.
Seven dollars, ninety-five cents.
Seventy-three dollars, eighty-two cents.
Four hundred nine dollars, seventy-five cents.
Four dollars, sixty-three cents.
Eighty-two dollars, ninety-four cents.
Seven dollars, thirty-eight cents.
Ninety-nine cents.

3. $465{,}083 - 99{,}794 = ?$
4. $\$40.01 - \$9.65 = ?$
5. $297{,}533 \div 5 = ?$
6. $\$9876.40 \div \$.05 = ?$
7. $365{,}343 \div 5 = ?$
8. $4968 \times 709 = ?$
9. $\$327.05 \times 9700 = ?$
10. $82{,}064 \times 12 = ?$

11. How many square feet are there in a floor which is 16 feet long and 14 feet wide?

12. How many square yards are there in the floor of a hall which is 56 yards long and 37 yards wide?

130. 1. Write in figures and add:

Four million, eight hundred three thousand, nine hundred sixty-seven.
Eighty-two thousand, eight hundred forty-six.
Seven hundred ninety-two thousand, five hundred thirty-eight.
Seventy-two thousand, six hundred ninety-four.
Five million, three hundred twenty-seven thousand, two hundred sixty-nine.
Four million, eighty.
Thirty thousand, fifty-nine.
Four hundred twenty-seven thousand, nine hundred six.

2. $43{,}289 + 75{,}046 + 82{,}209 + 90{,}728 + 64{,}840 + 3297 + 16{,}084 + 7290 = ?$

3. $\$30{,}010.27 - \$1265.83 = ?$

4. $80{,}020 - 2956 = ?$

5. $4960 \times 2800 = ?$

6. $70{,}380 \times 820 = ?$

7. $2510 \times 280 = ?$

8. $173{,}811 \div 5 = ?$

9. 824,512 ÷ 5 = ?

10. 422,028 ÷ 5 = ?

11. A man had $12,000; he left his wife ½ of it, and the remainder was to be divided equally between his two children; how much did each receive?

12. A hall contains 9 rows of benches, 25 benches in each row; each bench seats 5 persons. How many persons can be seated in the hall?

131. 1. Write in figures and add:

Three million, seven hundred two thousand, fifty.
Six million, eighty thousand, nine hundred seventy-five.
Four million, seven hundred twenty-five thousand, eight hundred sixty-three.
Nine hundred sixty-five thousand, seventy-five.
Fifty-six thousand, two hundred ninety-six.
Seven million, ninety-nine.
Eight hundred sixty-five thousand, three hundred seventy-five.
Ninety-six thousand, eight hundred forty-two.

2. $978.26 − $39.99 = ?

3. 8304 − 2096 = ?

4. $87.90 × 810 = ?

5. 26,534 × 18 = ?

6. 592,089 ÷ 6 = ?

7. $5034.28 ÷ 6 = ?

8. $2185.96 ÷ $.06 = ?

9. How many square yards are in the floor of a hall which is 59 yards long and 9 yards wide?

10. In a school building are 6 rooms, each seating 54 pupils; and in another school are 7 rooms, each seating 49 pupils; how many more pupils can be seated in one building than in the other?

11. What is the cost of 7 boxes of lemons, each containing 12 dozen lemons, at 9 cents a dozen?

12. If 8 marbles can be bought for a cent, how many marbles can be bought for 96 cents?

132. 1. Write in figures and add:

Forty dollars, eighty-two cents.
Three hundred dollars, ninety-five cents.
Sixty-seven dollars, nine cents.
Three dollars, forty-two cents.
Eight hundred sixty-four dollars, seventy-five cents.
Ninety-six dollars, thirty-eight cents.
Two hundred seventy-five dollars, seventy-four cents.
Eighty-three dollars, ninety-six cents.

2. $907.36 − $28.09 = ?

3. $970.30 − $29.67 = ?

4. 2384 × 8060 = ?

5. $59.67 × 68 = ?

6. 344,072 ÷ 6 = ?

7. $3975.04 ÷ 6 = ?

8. $5565.12 ÷ $.06 = ?

9. From $953 take $87.25.

10. If I bought goods amounting to $42.87 and gave in payment 5 ten-dollar bills, how much change should I receive?

11. A dealer sold 12 bushels of onions at 9 cents a peck; what did he receive for them?

12. Change 368 square yards to square feet.

133. 1. $465 + 842 + 973 + 246 + 754 + 938 + 475 + 684 = ?$

2. $\$804.03 - \$261.21 = ?$

3. $\$864 - \$8.64 = ?$

4. $5893 \times 752 = ?$

5. $4762 \times 527 = ?$

6. $826{,}137 \div 6 = ?$

7. $\$7166.91 \div 6 = ?$

8. $\$5833.02 \div \$.06 = ?$

9. A milkman sold 84 gallons of milk at 7 cents a quart; what did he receive for the milk?

10. If 8 men can build a wall in 96 days, how many days would it take 1 man to build it?

11. Change 8721 square yards to square feet.

12. Change 8721 square feet to square yards.

134. 1. Write in figures and add:

Eight million, two hundred three thousand, ninety-nine.
Seventy-five thousand, two hundred sixty-five.
Eight hundred forty-three thousand, seven hundred sixty-eight.
Three million, two hundred ninety-five thousand, eighty-seven.
Three hundred sixty-five thousand, two hundred ninety-six.
Eighty-four thousand, seven hundred twenty-four.
Three hundred eighty-six thousand, nine hundred ninety-nine.
Seventy-six thousand, eighty-two.

2. 5,081,206 − 987,449 = ?

3. $ 83.50 − $ 79.79 = ?

4. 3589 × 910 = ?

5. 7642 × 1900 = ?

6. 494,759 ÷ 6 = ?

7. $ 4771.72 ÷ 6 = ?

8. $ 3340.98 ÷ $ .06 = ?

9. What is the cost of 25 boxes of soap, each box containing 6 cakes, at 8 cents a cake?

10. A man gave 9 ten-dollar bills in payment for the use of a hall 6 nights, at $ 13.50 a night; how much change should he receive?

11. A dealer bought 12 bushels of cranberries and sold them for 40 cents a peck; what did he receive for them?

12. What is the distance in feet around a rectangular field which is 50 yards long and 40 yards wide?

135. 1. Write in figures and add:

Four thousand six hundred eighty dollars, three cents.
Seven hundred twenty-five dollars, ninety-nine cents.
Eight thousand thirty-two dollars, seventy-four cents.
Nine hundred seventy-five dollars.
Eighty-six dollars, twenty-four cents.
Ninety-nine cents.
Eighty-four dollars, thirty-two cents.
Eighty-seven cents.

2. $ 465.80 − $ 216.07 = ?

3. $ 714.94 − $ 659 = ?

4. 8396 × 4003 = ?

5. 74,025 × 34 = ?

6. 692,009 ÷ 7 = ?

7. 100,000 ÷ 7 = ?

8. $ 9788.03 ÷ $ .07 = ?

9. A dealer sold 96 gallons of milk at 7 cents a quart; what did he receive for the milk?

10. Change 843 square yards to square feet.

11. Change 2529 square feet to square yards.

12. Change 3465 square feet to square yards.

136. 1. Write in figures and add:

Nine million, eighty-four thousand, six hundred fifty-three.
Seventy-two thousand, nine hundred sixty-eight.
Eight hundred forty-six thousand, seven hundred twenty-one.
Forty thousand, one.
Three million, twenty thousand, sixty.
Four million, nine hundred sixty-eight thousand, seven hundred twenty-five.
Fourteen million, three hundred twenty-seven thousand, sixty-eight.
Ninety-five thousand, ninety-five.

2. $975 + 846 + 327 + 958 + 729 + 982 + 396 + 729 = ?$

3. $62{,}086 - 19{,}251 = ?$

4. $723{,}614 - 19{,}021 = ?$

5. $97{,}028 \times 7400 = ?$

6. $\$\,643.05 \times 407 = ?$

7. $340 \times 260 = ?$

8. $46{,}984 \div 7 = ?$

9. $614{,}197 \div 7 = ?$

10. $\$\,2517.41 \div \$\,.07 = ?$

11. How many square feet are in an oilcloth 18 feet long and 14 feet wide? How many square yards?

12. How many square feet are in the floor of a room 15 feet long and 12 feet wide? How many square yards?

137. 1. Write in figures and add:

Seven hundred thirty-eight dollars, five cents.
Ninety-six dollars, eighty-seven cents.
Four dollars, thirty-six cents.

Eight hundred thirty-nine dollars, seventy-five cents.
Forty-six dollars, eighty-four cents.
Nine dollars, eighty-two cents.
Ninety-three dollars, seventy-eight cents.
Four hundred sixty-two dollars, thirty-six cents.

2. \$ 886 − \$ 779.89 = ?
3. 5,016,000 − 2094 = ?
4. 29,465 × 930 = ?
5. 83,070 × 3090 = ?
6. 656,082 ÷ 7 = ?
7. 243,793 ÷ 7 = ?
8. \$ 3987.76 ÷ \$ .07 = ?

9. How many dresses, each requiring 7 yards, can be made from 105 yards of cloth?

10. How many square feet are in a walk 236 feet long and 8 feet wide?

11. A lady bought a pair of gloves for \$ 1.50, 4 pairs of stockings at 50 cents a pair, 2 pairs of shoes at \$ 4 a pair, a hat for \$ 6.50, a cape for \$ 8.50, and gave in payment 3 ten-dollar bills; how much change should she receive?

12. How many square yards of oilcloth will it take to cover a floor 18 feet long and 12 feet wide?

138. 1. 468 + 594 + 728 + 842 + 965 + 723 + 284 + 975 = ?

2. 89,024 − 2962 = ?
3. 400,010 − 36,842 = ?
4. 4326 × \$ .08 = ?
5. 30,486 × 680 = ?
6. \$ 59.27 × 8600 = ?
7. 37,391 ÷ 7 = ?
8. \$ 13,426 ÷ 7 = ?
9. \$ 1628.55 ÷ \$ .07 = ?

10. A room is 19 feet long and 14 feet wide; how many square feet are in the floor?

11. What is the area of a lot of land which is 280 feet long and 150 feet wide?

12. How many square yards of oilcloth are required to cover the floor of a room which is 18 feet long and 16 feet wide?

139. 1. Write in figures and add:

Four million, seventy thousand, six.
Three million, ninety-two thousand, eight hundred sixty-five.
Seven million, thirteen thousand, eleven.
Forty-six million, four hundred seventy-six thousand.
One million, ninety-five.
Eighteen million, six.
Six million, eighteen.
Four hundred three thousand, seventy-six.

2. $700.42 − $86.39 = ?
3. 8,029,000 − 5961 = ?
4. $97.82 × 521 = ?
5. 3060 × 250 = ?
6. 5400 × 520 = ?
7. $5246.23 ÷ 7 = ?
8. $7458.15 ÷ 7 = ?
9. $3987.76 ÷ $.07 = ?

10. A farmer had 640 acres of land and sold $\frac{1}{8}$ of it; how many acres did he sell?

11. A man bought $\frac{1}{3}$ of a lot of land which was 150 feet long and 80 feet wide; how many square feet did he buy?

12. A man bought property for $4000 and sold it so that he gained $\frac{1}{5}$ of the cost; for how much did he sell it?

140. 1. Write in figures and add:

Eighteen dollars, fifty cents.
Thirty-four dollars, six cents.
One hundred nine dollars, eleven cents.

Forty dollars, four cents.
Five thousand ten dollars, eight cents.
Eighty dollars, eight cents.
Seven hundred dollars.
Sixteen dollars, twenty cents.

2. From four hundred dollars, ten cents, take twenty-seven dollars, thirty-four cents.

3. Subtract 4907 from 10,010.

4. Find 3 times $46.07.

5. $649.03 × 568 = ?

6. $28.75 × 685 = ?

7. What is $\frac{1}{8}$ of $9594.96?

8. How many times is $.08 contained in $7837.52?

9. Find $\frac{2}{3}$ of 3738 sheep.

10. Change 20,423 quarts to pecks.

11. If $\frac{1}{2}$ of a man's sheep numbers 3945, how many sheep has he?

12. If $\frac{1}{3}$ of the distance between two places is 958 miles, what is the whole distance?

141. 1. 875 + 643 + 968 + 742 + 836 + 975 + 468 = ?

2. From nineteen dollars take nineteen cents.

3. Find the difference between $865 and $8.65.

4. 90,021 − 1809 = ?

5. Find 3967 times 4 cents.

6. $247.05 × 490 = ?

7. 9010 × 9400 = ?

8. $8306 \times 904 = ?$

9. Divide 334,096 by 8.

10. How many times is $ .08 contained in $ 2148.96?

11. How many rectangles, each containing 8 square inches, can be cut from one containing 199,680 square inches?

12. Find $\frac{3}{4}$ of 876 miles.

142. 1. Write in figures and add:

Four hundred ninety-six thousand, seven hundred eighty-four.
Thirty-five thousand, eighty-seven.
Nine thousand, two hundred sixty.
Forty-seven thousand, eight hundred seventy-nine.
Seven hundred nine thousand, six hundred forty-six.
Five hundred ninety-nine thousand, seven hundred eighteen.
Nine hundred nine thousand, ninety.

2. From forty dollars, forty cents take eighteen dollars.

3. Subtract 18,009 from 50,010.

4. Change 4652 quarts to pints.

5. Change 3976 yards to feet.

6. $ 46.28 × 3060 = ?

7. $75{,}039 \times 6003 = ?$

8. $715{,}711 \div 8 = ?$

9. How many times is $ .08 contained in $ 5926.64?

10. What is $\frac{1}{8}$ of 17,475?

11. Find $\frac{2}{5}$ of 8650.

12. Find $\frac{3}{5}$ of 7965.

143. 1. Write in figures and add:

Seven thousand, sixty dollars, forty cents.
Eight hundred eight dollars, eighty cents.
Six hundred dollars, thirty cents.
Ninety-seven dollars.
Four dollars, eighty-seven cents.
Sixty-three dollars, ninety-two cents.
Fifty cents.
Four hundred dollars.

2. From fifty-six dollars take thirteen dollars, eighty-seven cents.

3. $87,265 - 19,897 = ?$

4. Change 8750 bushels to pecks.

5. $50,396 \times 2100 = ?$

6. $2748 \times 1002 = ?$

7. $738,170 \div 8 = ?$

8. What is $\frac{1}{8}$ of $3498.24?

9. Find $\frac{5}{6}$ of 8934.

10. If $\frac{1}{3}$ of the value of a set of books is $28.45, what is the whole value?

11. If $\frac{1}{4}$ of my money is $29.64, what is the whole of it?

12. If $\frac{1}{5}$ of the area of a lot of land is 3572 square feet, what is the whole area?

144. 1. Write in figures and add:

Seven million, forty thousand, sixty-three.
Eight thousand, nine hundred forty-seven.
Sixty-five thousand, nineteen.

Six million, nine hundred nine thousand, seven hundred eighty-four.

Ninety-six million, two hundred forty-seven thousand, ninety-nine.

Six hundred forty-five thousand, seven hundred twenty.

Thirty-nine thousand, eight hundred seven.

Nine million, nine thousand, nine.

2. From eighty-seven dollars, six cents take forty-nine cents.
3. Subtract 8041 from 27,030.
4. Find 3892 times 7 cents.
5. $\$ 907.36 \times 4070 = ?$
6. $4528 \times 7400 = ?$
7. $430{,}007 \div 8 = ?$
8. $\$ 5270.52 \div \$ .08 = ?$
9. $441{,}166 \div 8 = ?$
10. Find $\frac{3}{7}$ of $830.55.
11. If $\frac{1}{4}$ of the number of persons in a city is 8254, how many persons are in the city?
12. If $\frac{1}{5}$ of the weight of a ship is 93,075 lbs., what is the whole weight of the ship?

145. 1. Write in figures and add:

Four dollars, eighty cents.
Seventy dollars, four cents.
Thirty-six dollars, eleven cents.
Forty dollars, thirty-three cents.
Seventy-five cents.
Sixteen dollars, one cent.
Eighty dollars, eight cents.

2. From two hundred forty-five dollars take eighty-seven cents.

3. 92,010 − 27,632 = ?

4. Change 9842 pecks to quarts.

5. Change 7980 square yards to square feet.

6. $290.87 × 92 = ?

7. 6435 × 29 = ?

8. 738,170 ÷ 8 = ?

9. Find $\frac{1}{8}$ of 253,388.

10. Find $\frac{5}{7}$ of $965.51.

11. If $\frac{1}{9}$ of the distance between two places is 6543 feet, what is the whole distance? What is the distance in yards?

12. 965 weeks are how many days?

146. 1. Write in figures and add:

Six million, thirty thousand, forty-two.

Eighty million, two hundred seventy thousand, five hundred eight.

Seventy-five million, sixteen thousand, eleven.

Forty million, nine hundred ninety thousand, six hundred ten.

Ninety-nine million, ninety-nine thousand, ninety-nine.

Fourteen million, seventy-five thousand.

Eighty-two million, sixty-eight.

Forty-seven thousand, nineteen.

2. From $869 take $8.69.

3. Subtract 8697 from 40,010.

4. Change 86,750 quarts to pints.

5. Change 5934 yards to feet.

6. $\frac{1}{2}$ the distance between two places is 2934 feet; what is the whole distance?

7. $\frac{1}{3}$ of a number is 18,762; what is the number?

8. $4698 \times 865 = ?$

9. $7253 \times 586 = ?$

10. $115{,}039 \div 9 = ?$

11. $\$8237.07 \div 9 = ?$

12. Find $\frac{6}{7}$ of 8995.

147. 1. Write in figures and add:

Ninety dollars, one cent.
Seventeen dollars, sixty cents.
Forty-five dollars, thirty-nine cents.
Eighty-seven cents.
Sixty-four dollars, three cents.
Four hundred dollars.
Five dollars, sixty-five cents.
Five hundred sixty-five dollars.

2. $70{,}001 - 36{,}029 = ?$

3. From one hundred dollars take one cent.

4. Change 93,705 gallons to quarts.

5. Change 28,614 bushels to pecks.

6. $4960 \times 2800 = ?$

7. $70{,}380 \times 820 = ?$

8. $2510 \times 280 = ?$

9. $855{,}686 \div 9 = ?$

10. Find $\frac{1}{9}$ of \$6046.02.

11. Find $\frac{3}{8}$ of 592 miles.

12. At the rate of 596 miles a day, how far would a railroad train go in 8 days?

148. 1. $8042 + 795 + 863 + 9201 + 897 + 963 + 809 + 9725 = ?$

2. From \$400 take \$3.87.

3. Find the difference between 8007 miles and 4239 miles.

4. Change 8754 weeks to days.
5. Change 9638 weeks to days.
6. $7280 \times 9300 = ?$
7. $9640 \times 3900 = ?$
8. $3150 \times 390 = ?$
9. $624{,}164 \div 9 = ?$
10. $662{,}919 \div 9 = ?$
11. $\$7{,}152.75 \div \$.09 = ?$
12. Find $\frac{1}{9}$ of 247,886.

149. 1. $\$63.09 + \$285.73 + \$987 + \$4.87 + \$762.99 + \$.75 + \$91.38 + \$597.68 = ?$

2. $\$760.01 - \$392.09 = ?$
3. $80{,}010 - 27{,}309 = ?$
4. Change 3752 pecks to quarts.
5. Change 9684 pecks to quarts.
6. $18{,}634 \times 614 = ?$
7. $29{,}057 \times 4106 = ?$
8. $247{,}886 \div 9 = ?$
9. $\$2538.43 \div \$.09 = ?$
10. $\frac{1}{9}$ of $\$9390.51 = ?$
11. $\frac{1}{9}$ of $\$7492.40 = ?$
12. Find $\frac{5}{8}$ of 9256.

150. 1. $832 + 9643 + 709 + 864 + 9728 + 7409 + 6097 + 896 = ?$

2. $96{,}084 - 4927 = ?$
3. $1{,}010{,}010 - 296{,}037 = ?$
4. Change 96,842 square yards to square feet.
5. Change 30,715 square yards to square feet.

6. $84{,}620 \times 570 = ?$

7. $15{,}070 \times 7500 = ?$

8. $3900 \times 705 = ?$

9. $260{,}943 \div 9 = ?$

10. $\frac{1}{9}$ of $229{,}138 = ?$

11. $\$7639.16 \div \$.09 = ?$

12. $552{,}657 \div 9 = ?$

151. 1. $\$7.36 + \$96.87 + \$43.28 + \$475.06 + \$5.87 + \$4975.68 + \$.87 + \$9.63 = ?$

2. $8{,}060{,}230 - 975{,}396 = ?$

3. $\$596 - \$5.96 = ?$

4. $8752 \times 3001 = ?$

5. $69{,}340 \times 130 = ?$

6. $\$7838.64 \div \$.09 = ?$

7. $\$6587.71 \div 9 = ?$

8. Change 525,474 square feet to square yards.

9. Change 217,053 square feet to square yards.

10. A man had 720 acres of land and sold $\frac{5}{8}$ of it; how many acres did he sell? how many acres had he left?

11. A man had 360 animals; $\frac{2}{9}$ of them were cattle; $\frac{1}{9}$ were horses; $\frac{4}{9}$ were sheep, and the rest were poultry; how many of each had he?

12. A man sold $\frac{2}{3}$ of a lot of land 240 feet long and 120 feet wide. How many square feet did he sell? How many square feet did he keep?

SECTION XII

ORAL EXERCISES

152. Add, beginning with the lower number, putting any figure from 1 to 9 in place of *, and considering the lower number as a whole.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7	5	7	2	6	6	9	5	6
5	8	2	6	1	2	5	1	3
4	8	5	5	9	8	6	6	9
2	3	4	7	6	6	3	2	1
*6	*1	*4	*2	*4	*1	*5	*8	*2

(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
9	7	6	2	6	2	7	8	9
3	5	5	4	2	4	3	4	6
9	8	3	7	8	7	9	7	6
1	3	3	4	7	6	2	1	1
2	6	9	4	3	4	6	7	5
4	1	5	5	8	1	2	3	9
*5	*6	*1	*5	*1	*8	*3	*3	*1

(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
9	8	9	6	9	3	5	4	8
1	1	4	2	3	5	7	2	2
8	9	8	5	9	7	4	8	1
3	2	3	5	4	5	2	6	7
8	6	1	8	4	7	9	3	3
6	4	7	1	2	2	5	7	4
*3	*2	*3	*4	*5	*2	*3	*1	*6

(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
2	7	9	9	5	9	4	4	6
3	2	4	4	2	7	5	3	8
9	8	9	5	8	8	6	9	9
5	1	1	3	1	2	2	3	1
*2	*9	*3	*4	*5	*1	*7	*2	*1

(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)
7	6	3	8	1	9	9	4	6
2	7	7	6	6	1	1	3	4
3	8	4	8	5	6	9	8	3
1	1	1	1	4	2	4	6	9
9	7	7	7	7	7	8	2	5
3	4	8	4	1	5	6	3	2
*6	*1	*2	*3	*7	*4	*2	*7	*4

153.

1. 20 + 90 = ?
2. 70 + 50 = ?
3. 40 + 80 = ?
4. 50 + 90 = ?
5. 80 + 60 = ?
6. 70 + 90 = ?
7. 30 + 80 = ?
8. 60 + 50 = ?
9. 80 + 70 = ?
10. 80 + 50 = ?
11. 50 + 60 = ?
12. 80 + 80 = ?
13. 30 + 90 = ?
14. 90 + 40 = ?
15. 70 + 80 = ?
16. 90 + 30 = ?
17. 70 + 70 = ?
18. 40 + 70 = ?
19. 90 + 80 = ?
20. 60 + 80 = ?
21. 90 + 70 = ?
22. 70 + 40 = ?
23. 90 + 50 = ?
24. 70 + 60 = ?
25. 90 + 20 = ?
26. 80 + 40 = ?
27. 90 + 60 = ?
28. 60 + 60 = ?
29. 50 + 80 = ?
30. 40 + 90 = ?
31. 50 + 70 = ?
32. 80 + 90 = ?
33. 90 + 90 = ?
34. 60 + 70 = ?
35. 80 + 30 = ?
36. 60 + 90 = ?

154.

1. $130-80=?$
2. $120-60=?$
3. $110-50=?$
4. $130-50=?$
5. $160-80=?$
6. $130-40=?$
7. $120-30=?$
8. $120-50=?$
9. $130-90=?$
10. $170-80=?$
11. $150-70=?$
12. $180-90=?$
13. $120-90=?$
14. $130-60=?$
15. $140-70=?$
16. $110-80=?$
17. $110-40=?$
18. $150-60=?$
19. $110-20=?$
20. $170-90=?$
21. $120-70=?$
22. $140-60=?$
23. $120-40=?$
24. $160-90=?$
25. $140-50=?$
26. $110-70=?$
27. $140-80=?$
28. $130-70=?$
29. $160-70=?$
30. $140-90=?$
31. $110-30=?$
32. $150-80=?$
33. $110-90=?$
34. $150-90=?$
35. $110-60=?$
36. $120-80=?$

155.

1. $91+20=?$
2. $42+80=?$
3. $71+70=?$
4. $86+30=?$
5. $59+60=?$
6. $52+70=?$
7. $73+90=?$
8. $95+40=?$
9. $63+50=?$
10. $86+80=?$
11. $31+90=?$
12. $68+60=?$
13. $78+40=?$
14. $65+90=?$
15. $84+50=?$
16. $57+80=?$
17. $93+70=?$
18. $87+90=?$
19. $24+90=?$
20. $94+30=?$
21. $43+90=?$
22. $76+80=?$
23. $98+90=?$
24. $96+50=?$
25. $65+70=?$
26. $87+60=?$
27. $41+70=?$
28. $79+50=?$
29. $87+70=?$
30. $92+60=?$
31. $35+80=?$
32. $74+60=?$
33. $89+40=?$
34. $58+90=?$
35. $62+80=?$
36. $99+80=?$

156.

1. $24+97=?$
2. $56+66=?$
3. $89+53=?$
4. $98+98=?$
5. $65+96=?$
6. $84+89=?$
7. $59+97=?$
8. $87+35=?$
9. $86+45=?$
10. $93+38=?$
11. $77+97=?$
12. $78+64=?$
13. $62+79=?$
14. $78+79=?$
15. $68+66=?$
16. $99+85=?$
17. $34+88=?$
18. $46+77=?$
19. $98+23=?$
20. $66+89=?$
21. $47+88=?$
22. $65+57=?$
23. $97+64=?$
24. $36+98=?$
25. $77+46=?$
26. $95+59=?$
27. $79+59=?$
28. $88+67=?$
29. $99+74=?$
30. $53+89=?$
31. $99+42=?$
32. $59+78=?$
33. $47+99=?$
34. $88+75=?$
35. $85+98=?$
36. $79+86=?$

157.

1. $173-89=?$
2. $141-77=?$
3. $121-49=?$
4. $133-36=?$
5. $144-55=?$
6. $181-82=?$
7. $162-65=?$
8. $174-76=?$
9. $124-39=?$
10. $164-97=?$
11. $172-96=?$
12. $165-76=?$
13. $192-99=?$
14. $132-94=?$
15. $182-97=?$
16. $126-67=?$
17. $151-83=?$
18. $161-84=?$
19. $141-86=?$
20. $131-85=?$
21. $137-69=?$
22. $133-44=?$
23. $138-79=?$
24. $135-47=?$
25. $122-53=?$
26. $123-85=?$
27. $156-79=?$
28. $155-68=?$
29. $154-98=?$
30. $131-58=?$
31. $126-28=?$
32. $153-57=?$
33. $147-68=?$
34. $122-98=?$
35. $125-79=?$
36. $143-98=?$

158.

1. $8 \times 80 = ?$
2. $9 \times 60 = ?$
3. $8 \times 50 = ?$
4. $6 \times 80 = ?$
5. $7 \times 60 = ?$
6. $9 \times 70 = ?$
7. $8 \times 40 = ?$
8. $9 \times 50 = ?$
9. $3 \times 30 = ?$
10. $8 \times 20 = ?$
11. $5 \times 50 = ?$
12. $9 \times 80 = ?$
13. $2 \times 20 = ?$
14. $3 \times 20 = ?$
15. $7 \times 30 = ?$
16. $2 \times 90 = ?$
17. $3 \times 60 = ?$
18. $4 \times 40 = ?$
19. $7 \times 70 = ?$
20. $6 \times 40 = ?$
21. $5 \times 30 = ?$
22. $6 \times 20 = ?$
23. $9 \times 90 = ?$
24. $3 \times 80 = ?$
25. $2 \times 40 = ?$
26. $7 \times 20 = ?$
27. $4 \times 30 = ?$
28. $8 \times 70 = ?$
29. $7 \times 50 = ?$
30. $5 \times 40 = ?$
31. $9 \times 30 = ?$
32. $5 \times 20 = ?$
33. $6 \times 60 = ?$
34. $7 \times 40 = ?$
35. $4 \times 90 = ?$
36. $5 \times 60 = ?$

159.

1. $2 \times 30 = ?$
2. $3 \times 70 = ?$
3. $6 \times 50 = ?$
4. $4 \times 70 = ?$
5. $10 \times 60 = ?$
6. $3 \times 90 = ?$
7. $2 \times 70 = ?$
8. $5 \times 90 = ?$
9. $10 \times 50 = ?$
10. $4 \times 60 = ?$
11. $6 \times 90 = ?$
12. $8 \times 60 = ?$
13. $9 \times 40 = ?$
14. $3 \times 50 = ?$
15. $10 \times 90 = ?$
16. $8 \times 30 = ?$
17. $5 \times 70 = ?$
18. $4 \times 20 = ?$
19. $5 \times 80 = ?$
20. $4 \times 50 = ?$
21. $10 \times 20 = ?$
22. $6 \times 70 = ?$
23. $4 \times 80 = ?$
24. $8 \times 90 = ?$
25. $10 \times 80 = ?$
26. $9 \times 20 = ?$
27. $6 \times 30 = ?$
28. $10 \times 30 = ?$
29. $7 \times 90 = ?$
30. $2 \times 80 = ?$
31. $10 \times 70 = ?$
32. $3 \times 40 = ?$
33. $2 \times 60 = ?$
34. $2 \times 50 = ?$
35. $7 \times 80 = ?$
36. $10 \times 40 = ?$

160.

1. $630 \div 9 = ?$
2. $280 \div 7 = ?$
3. $40 \div 2 = ?$
4. $300 \div 5 = ?$
5. $810 \div 9 = ?$
6. $250 \div 5 = ?$
7. $160 \div 4 = ?$
8. $350 \div 7 = ?$
9. $640 \div 8 = ?$
10. $180 \div 2 = ?$
11. $540 \div 9 = ?$
12. $400 \div 8 = ?$
13. $490 \div 7 = ?$
14. $240 \div 3 = ?$
15. $560 \div 8 = ?$
16. $360 \div 4 = ?$
17. $100 \div 5 = ?$
18. $120 \div 4 = ?$
19. $150 \div 5 = ?$
20. $450 \div 9 = ?$
21. $320 \div 8 = ?$
22. $60 \div 3 = ?$
23. $480 \div 6 = ?$
24. $210 \div 7 = ?$
25. $360 \div 6 = ?$
26. $180 \div 3 = ?$
27. $140 \div 7 = ?$
28. $240 \div 6 = ?$
29. $90 \div 3 = ?$
30. $420 \div 7 = ?$
31. $160 \div 8 = ?$
32. $720 \div 9 = ?$
33. $120 \div 6 = ?$
34. $80 \div 2 = ?$
35. $200 \div 5 = ?$
36. $270 \div 9 = ?$

161.

1. $420 \div 6 = ?$
2. $400 \div 10 = ?$
3. $120 \div 2 = ?$
4. $700 \div 10 = ?$
5. $60 \div 2 = ?$
6. $150 \div 3 = ?$
7. $630 \div 7 = ?$
8. $280 \div 4 = ?$
9. $400 \div 5 = ?$
10. $900 \div 10 = ?$
11. $120 \div 3 = ?$
12. $240 \div 4 = ?$
13. $480 \div 8 = ?$
14. $80 \div 4 = ?$
15. $350 \div 5 = ?$
16. $100 \div 2 = ?$
17. $560 \div 7 = ?$
18. $160 \div 2 = ?$
19. $180 \div 6 = ?$
20. $300 \div 10 = ?$
21. $180 \div 9 = ?$
22. $800 \div 10 = ?$
23. $140 \div 2 = ?$
24. $210 \div 3 = ?$
25. $300 \div 6 = ?$
26. $240 \div 8 = ?$
27. $720 \div 8 = ?$
28. $600 \div 10 = ?$
29. $500 \div 10 = ?$
30. $320 \div 4 = ?$
31. $360 \div 9 = ?$
32. $200 \div 4 = ?$
33. $270 \div 3 = ?$
34. $450 \div 5 = ?$
35. $540 \div 6 = ?$
36. $200 \div 10 = ?$

162. 1. If anything is divided into two equal parts, each part is called ——.

2. If —— is taken away —— remains.

3. If anything is divided into three equal parts, each part is called ——.

4. If —— is taken away —— remain. (Fill blanks twice.)

5. If anything is divided into four equal parts, each part is called ——.

6. If —— is taken away —— remain. (Fill blanks three times.)

7. If anything is divided into five equal parts, each part is called ——.

8. If —— is taken away —— remain. (Fill blanks four times.)

9. If anything is divided into six equal parts, each part is called ——.

10. If —— is taken away —— remain. (Fill blanks five times.)

11. If anything is divided into seven equal parts, each part is called ——.

12. If —— is taken away —— remain. (Fill blanks six times.)

13. If anything is divided into eight equal parts, each part is called ——.

14. If —— is taken away —— remain. (Fill blanks seven times.)

15. If anything is divided into nine equal parts, each part is called ——.

16. If —— is taken away —— remain. (Fill blanks eight times.)

17. If anything is divided into ten equal parts, each part is called ——.

18. If —— is taken away —— remain. (Fill blanks nine times.)

19. If a boy lost $\frac{2}{3}$ of his marbles, he had —— of them left.

20. If a man spent $\frac{2}{5}$ of his money, he had —— of it left.

21. If a girl did $\frac{3}{7}$ of her work, she had —— of it left to do.

22. If a man has traveled $\frac{3}{8}$ of his journey, he has —— of it left to travel.

23. If a lady gave away $\frac{5}{9}$ of her flowers, she had —— of them left.

24. If a man sold $\frac{3}{10}$ of his land, he had —— of it left.

163. 1. A dealer sold 8 dozen pencils at a cent apiece; what did he receive for them?

2. A boy cut a stick 6 feet long into inch pieces; how many pieces had he?

3. A boy cut a stick 6 feet long into pieces a yard long; how many pieces had he?

4. A boy cut a stick which was 84 inches long into pieces a foot long; how many pieces had he?

5. A dealer sold a piece of cloth 36 feet long for $ 2 a yard; what did he receive for it?

6. A farmer sold 108 eggs for 30 cents a dozen; what did he receive for them?

7. A boy rode 5 hours at the rate of 12 miles an hour, and walked 4 hours at the rate of 3 miles an hour; how far did he travel?

8. A grocer had 20 bushels of cranberries; he sold 8 bushels at $ 3 a bushel, and the remainder at $ 2 a bushel; how much did he receive for all?

9. If a man paid $ 6 a week for board, what would he pay for 70 days' board?

10. Two boys started from the same place to walk in opposite directions. If one boy walked 3 miles an hour, and the other 4 miles an hour, how far apart were they at the end of 6 hours?

11. At half a dollar each, what is the cost of 4 dozen books?

12. At 11 cents a quart, what is the cost of a peck and 3 quarts of cranberries?

13. At 12 cents a quart, what is the cost of 3 gallons of vinegar? of 2 gallons and 2 quarts?

14. How many pecks are 9 bushels and 3 pecks?

15. How many quarts are 10 pecks and 7 quarts?

16. How many quarts are 8 gallons and 2 quarts?

17. How many quarts are 9 pecks and 5 quarts?

18. What is the area of the top of a table which is 5 feet long and 3 feet wide?

19. What is the area of the floor of a room which is 9 feet long and 9 feet wide?

20. What is the value of a piece of oilcloth which is 5 yards long and 4 yards wide, at half a dollar a square yard?

21. A man bought 8 chairs at $ 6 each and sold them so as to gain $\frac{1}{12}$ of the cost; for how much did he sell them?

22. A farmer sold 10 pigs at $ 4 each and with the money bought sheep at $ 8 each; how many sheep did he buy?

23. A farmer sold 4 sheep at $ 8 each and 8 pigs at $ 5 each. With the money received he bought chairs at $ 6 each; how many chairs did he buy?

24. A dealer bought 10 tables at $ 9 each and sold them so as to gain $\frac{1}{3}$ of the cost; what did he receive for all?

164. 1. What is the cost of 2 pecks 3 quarts of onions at 9 cents a quart?

2. What is the cost of 10 pounds of tea at $\frac{3}{4}$ of a dollar a pound?

3. At 25 cents a yard, how many yards of cloth can be bought for 7 dollars?

4. How many six-inch sticks can be cut from a stick 8 feet and 6 inches long?

5. What is the area of a rectangle which is 1 foot long and 11 inches wide?

6. A lady bought 7 tables at $ 9 each, 2 rugs for $ 2 each, and 2 lamps for $ 7 each; if she had 9 ten-dollar bills at first, how much had she left after paying for the things?

7. If 7 chairs cost $ 56, what is the cost of 1 at the same rate? of 8?

8. If John traveled 54 miles in 6 hours, how far was that each hour? how far in 5 hours?

9. Jessie had 88 cents; she spent $\frac{5}{11}$ of it for a book, $\frac{3}{11}$ of it for a calendar, and the rest for a picture? What did the book cost? the calendar? the picture?

10. A little girl had 66 cents; she spent $\frac{5}{11}$ of it for flowers, and the rest for pencils at 6 cents each; how many pencils did she buy?

11. Joseph worked 3 weeks for a farmer for half a dollar a day; how much money did he earn?

12. Carrie picked half a peck of berries and sold them for 11 cents a quart; what did she receive?

13. In one schoolroom are 7 rows of seats, 5 seats in each row, and in another are 6 rows of seats, 6 seats in a row; how many pupils can be seated in both rooms?

14. In an orchard are 2 rows of apple trees, 5 trees in a row; 2 rows of pear trees, 9 trees in a row; 2 rows of quince trees, 7 trees in a row; and 2 rows of peach trees, 6 trees in a row. How many trees are there in all?

15. In a bouquet were 2 roses at 8 cents each, 3 pinks at 3 cents each, 5 pinks at 5 cents each, and 2 roses at 7 cents each; what was the cost of the bouquet?

16. A man had to take a journey of 77 miles; when he had gone $\frac{6}{11}$ of the distance, how far had he still to travel?

17. If $\frac{1}{3}$ of the distance between two places is 9 miles, what is the whole distance?

18. Oscar has 49 marbles and Joseph has $\frac{5}{7}$ as many; how many marbles have they both?

19. George had 20 books and 16 pencils; he carried $\frac{1}{5}$ of his books and $\frac{1}{4}$ of his pencils to school. How many of each did he leave at home?

20. Lucy had 50 roses, and Carrie had 42 pinks; Lucy gave her teacher $\frac{2}{5}$ of her roses, and Carrie gave her $\frac{3}{7}$ of her pinks; how many flowers had the teacher?

21. What is the cost of a peck and 3 quarts of beans at 10 cents a quart?

22. What is the cost of 2 gallons 3 quarts of milk at 7 cents a quart?

23. What is the cost of 2 bushels 3 pecks of apples at 30 cents a peck?

165. 1. At the rate of 40 miles an hour, how far would a railroad train go in 9 hours?

2. A man owns a farm of 210 acres. $\frac{3}{7}$ of the land is woodland; how many acres of woodland has he?

3. At the rate of 12 miles an hour, how many hours would it take a sailing vessel to go 960 miles?

4. 20 things are called a SCORE. How many years are three score years and ten?

5. In 810 square feet there are how many square yards?

6. In a certain length of time one steamer sailed 360 miles and another sailed $\frac{5}{6}$ as far; how far did the second one sail?

7. Change 320 quarts to pecks.

8. A man built a fence 60 yards long; how many feet long was it?

9. A farmer who had 300 hens sold $\frac{2}{5}$ of them; how many hens had he left?

10. How many minutes are there in 8 hours?

11. If you can buy 5 marbles for 1 cent, how many marbles can you buy for 80 cents?

12. When a person has lived 560 days in a place, how many weeks has he lived there?

13. If a railroad train goes 240 miles in 6 hours, what is the rate per hour?

14. 2 men own 240 acres of land; one man owns $\frac{2}{3}$ of it, the other the remainder; how much does each own?

15. At $ 5 each, how many chairs can be bought for $ 200?

16. If $ 360 be divided equally among 4 persons, how much would each receive?

17. A dealer bought goods to the amount of $ 640, paying $\frac{5}{8}$ of the price; how much does he still owe?

18. 3 men working together built 150 feet of fence, building equal amounts; how much did each build?

19. A dealer sold 70 quarts of milk by the pint; how many pints did he sell?

20. How many minutes are 9 hours?

21. A man who had 490 sheep sold $\frac{4}{7}$ of them; how many had he left?

22. $ 630 were divided between two persons. One received $\frac{7}{9}$ of it, the other the remainder; how much did each receive?

23. Two men working together built 720 feet of stone wall. One built $\frac{5}{9}$ of it, the other the remainder; how much did each build?

166. 1. What is $4 \times \frac{1}{2}$? What is $\frac{1}{2}$ of 4?

2. What is $9 \times \frac{1}{3}$? What is $\frac{1}{3}$ of 9?

3. What is $12 \times \frac{2}{3}$? What is $\frac{2}{3}$ of 12?

4. What is $16 \times \frac{1}{4}$? What is $\frac{1}{4}$ of 16?

5. What is $20 \times \frac{3}{4}$? What is $\frac{3}{4}$ of 20?

6. What is $40 \times \frac{1}{5}$? What is $\frac{1}{5}$ of 40?

7. What is $20 \times \frac{3}{5}$? What is $\frac{3}{5}$ of 20?

8. What is $54 \times \frac{1}{6}$? What is $\frac{1}{6}$ of 54?

9. What is $12 \times \frac{5}{6}$? What is $\frac{5}{6}$ of 12?

10. What is $42 \times \frac{1}{7}$? What is $\frac{1}{7}$ of 42?

11. What is $7 \times \frac{3}{7}$? What is $\frac{3}{7}$ of 7?

12. What is $48 \times \frac{1}{8}$? What is $\frac{1}{8}$ of 48?

13. What is $8 \times \frac{5}{8}$? What is $\frac{5}{8}$ of 8?

14. What is $63 \times \frac{1}{9}$? What is $\frac{1}{9}$ of 63?

15. What is $9 \times \frac{8}{9}$? What is $\frac{8}{9}$ of 9?

16. At the rate of 8 miles an hour, how far would a man ride in 6 hours and a half?

17. At \$ $6\frac{1}{2}$ each, what is the cost of 8 chairs?

18. $6\frac{1}{2} \times 8$ equals 6×8 and $\frac{1}{2}$ of 8. $8 \times 6\frac{1}{2}$ equals 8×6 and $8 \times \frac{1}{2}$. What is $6\frac{1}{2} \times 8$? What is $8 \times 6\frac{1}{2}$?

19. At 12 cents a pound, what is the cost of $5\frac{1}{2}$ pounds of dates?

20. A farmer sent 8 cheeses to market, each weighing $12\frac{1}{2}$ pounds; what did they all weigh?

21. If a boy earns $3\frac{2}{3}$ dollars a week, what does he earn in 9 weeks?

22. At the rate of $7\frac{2}{3}$ miles an hour, how far would a man ride in 6 hours?

23. At the rate of 8 pages an hour, how many pages can Alice write in $7\frac{3}{4}$ hours?

24. How many eggs are there in $4\frac{1}{4}$ dozen?

167. 1. John walked 20 miles and rode $4\frac{1}{5}$ times as far; how far did he ride?

2. If $6\frac{2}{5}$ yards of cloth are required for a dress, how many yards are required for 10 such dresses?

3. At the rate of \$ $5\frac{4}{5}$ a ton, what must a family pay for coal for a year if it burns 30 tons?

4. A dealer sold $7\frac{5}{6}$ dozen pencils at a cent apiece; what did he receive for them?

5. How many minutes are in $8\frac{1}{6}$ hours?

6. How many days are in $5\frac{5}{7}$ weeks?

7. At a dollar a day, what must a man pay for $6\frac{4}{7}$ weeks' board?

8. At the rate of 70 miles an hour, how far does a train travel in $9\frac{2}{7}$ hours?

9. How many quarts are in $8\frac{5}{8}$ pecks?

10. A tailor made 40 suits of clothes, each requiring $6\frac{3}{8}$ yards of cloth; how many yards did he use?

11. A family used $2\frac{7}{8}$ pecks of potatoes in a week at 32 cents a peck; what did its potatoes cost it for that week?

12. How many square feet are in $6\frac{7}{9}$ square yards?

13. At 90 cents a yard, what is the cost of $4\frac{2}{9}$ yards of cloth?

14. If a man walks $3\frac{5}{9}$ miles each day, how far does he walk in 90 days?

15. At 30 cents a pound, what is the cost of $7\frac{1}{6}$ pounds of candy?

16. How many things are $9\frac{1}{2}$ score?

17. At \$ $5\frac{3}{5}$ each, what is the cost of 40 tables?

18. What is the cost of 30 barrels of flour at \$ $6\frac{2}{3}$ a barrel?

19. At the rate of 90 miles an hour, how far would a train go in $3\frac{4}{9}$ hours?

20. At the rate of 40 miles an hour, how far would a train go in $6\frac{3}{4}$ hours?

21. If a boy earns $3\frac{1}{8}$ dollars a week for 40 weeks, how much money does he earn?

22. If a man earns $3\frac{1}{2}$ dollars a day for 60 days, how much does he earn?

23. How many seconds are $4\frac{1}{3}$ minutes?

24. What is the cost of $9\frac{3}{7}$ yards of cloth, at 70 cents a yard?

168. 1. 2 is what part of 6? 6 is how many times 2?

2. How far would a train go in 6 hours, compared with the distance it would go in 2 hours, if it keeps the same rate of travel?

3. How much work could you do in 2 hours, compared with the amount you could do in 6 hours, working at the same rate?

The relation of one quantity to another, or of one number to another, is called the RATIO *of the one to the other.*

The RATIO *of* 6 *to* 2 *is* 3.

The RATIO *of* 2 *to* 6 *is* $\frac{1}{3}$.

4. What is the ratio of 2 to 12? of 8 to 2? of 2 to 20? of 14 to 2? of 18 to 2? of 2 to 10? of 16 to 2? of 4 to 2? of 2 to 6?

5. What is the ratio of 3 to 6? of 30 to 3? of 24 to 3? of 3 to 12? of 3 to 21? of 18 to 3? of 3 to 9? of 3 to 27? of 15 to 3?

6. What is the ratio of 4 to 8? of 16 to 4? of 40 to 4? of 4 to 20? of 36 to 4? of 12 to 4? of 4 to 24? of 28 to 4? of 4 to 32?

7. What is the ratio of 10 to 5? of 5 to 15? of 5 to 50? of 40 to 5? of 25 to 5? of 5 to 30? of 5 to 45? of 35 to 5? of 5 to 20?

8. What is the ratio of 6 to 24? of 6 to 42? of 54 to 6? of 36 to 6? of 48 to 6? of 6 to 30? of 6 to 12? of 60 to 6? of 6 to 18?

9. What is the ratio of 7 to 14? of 28 to 7? of 42 to 7? of 7 to 63? of 21 to 7? of 7 to 49? of 7 to 70? of 56 to 7? of 7 to 35?

10. What is the ratio of 8 to 24? of 56 to 8? of 80 to 8? of 8 to 64? of 40 to 8? of 16 to 8? of 8 to 32? of 8 to 48? of 72 to 8?

11. What is the ratio of 9 to 90? of 9 to 27? of 36 to 9? of 81 to 9? of 9 to 45? of 18 to 9? of 9 to 54? of 72 to 9? of 9 to 63?

12. What is the ratio of 60 to 10? of 10 to 20? of 50 to 10? of 100 to 10? of 10 to 80? of 10 to 40? of 30 to 10? of 70 to 10? of 10 to 90?

13. Draw 8 oblongs, squares, or circles, dividing one into 3, one into 4, one into 5, one into 6, one into 7, one into 8, one into 9, and one into 10 equal parts.

14. Observing the figures drawn, tell the ratio of $\frac{1}{3}$ to $\frac{2}{3}$; of $\frac{1}{4}$ to $\frac{2}{4}$; of $\frac{1}{5}$ to $\frac{2}{5}$; of $\frac{1}{6}$ to $\frac{2}{6}$; of $\frac{1}{7}$ to $\frac{2}{7}$; of $\frac{1}{8}$ to $\frac{2}{8}$; of $\frac{1}{9}$ to $\frac{2}{9}$; of $\frac{1}{10}$ to $\frac{2}{10}$.

15. Observing the figures, tell the ratio of $\frac{2}{3}$ to $\frac{1}{3}$; of $\frac{2}{4}$ to $\frac{1}{4}$; of $\frac{2}{5}$ to $\frac{1}{5}$; of $\frac{2}{6}$ to $\frac{1}{6}$; of $\frac{2}{7}$ to $\frac{1}{7}$; of $\frac{2}{8}$ to $\frac{1}{8}$; of $\frac{2}{9}$ to $\frac{1}{9}$; of $\frac{2}{10}$ to $\frac{1}{10}$.

16. What is the ratio of $\frac{1}{4}$ to $\frac{3}{4}$? of $\frac{3}{4}$ to $\frac{1}{4}$? of $\frac{1}{5}$ to $\frac{3}{5}$? of $\frac{3}{5}$ to $\frac{1}{5}$? of $\frac{1}{6}$ to $\frac{3}{6}$? of $\frac{3}{6}$ to $\frac{1}{6}$? of $\frac{1}{7}$ to $\frac{3}{7}$? of $\frac{3}{7}$ to $\frac{1}{7}$? of $\frac{1}{8}$ to $\frac{3}{8}$? of $\frac{3}{8}$ to $\frac{1}{8}$? of $\frac{1}{9}$ to $\frac{3}{9}$? of $\frac{3}{9}$ to $\frac{1}{9}$? of $\frac{1}{10}$ to $\frac{3}{10}$? of $\frac{3}{10}$ to $\frac{1}{10}$?

17. What is the ratio of $\frac{1}{5}$ to $\frac{4}{5}$? of $\frac{4}{5}$ to $\frac{1}{5}$? of $\frac{1}{6}$ to $\frac{4}{6}$? of $\frac{4}{6}$ to $\frac{1}{6}$? of $\frac{1}{7}$ to $\frac{4}{7}$? of $\frac{4}{7}$ to $\frac{1}{7}$? of $\frac{1}{8}$ to $\frac{4}{8}$? of $\frac{4}{8}$ to $\frac{1}{8}$? of $\frac{1}{9}$ to $\frac{4}{9}$? of $\frac{4}{9}$ to $\frac{1}{9}$? of $\frac{1}{10}$ to $\frac{4}{10}$? of $\frac{4}{10}$ to $\frac{1}{10}$?

18. What is the ratio of $\frac{1}{6}$ to $\frac{5}{6}$? of $\frac{5}{6}$ to $\frac{1}{6}$? of $\frac{1}{7}$ to $\frac{5}{7}$? of $\frac{5}{7}$ to $\frac{1}{7}$? of $\frac{1}{8}$ to $\frac{5}{8}$? of $\frac{5}{8}$ to $\frac{1}{8}$? of $\frac{1}{9}$ to $\frac{5}{9}$? of $\frac{5}{9}$ to $\frac{1}{9}$? of $\frac{1}{10}$ to $\frac{5}{10}$? of $\frac{5}{10}$ to $\frac{1}{10}$?

19. What is the ratio of $\frac{1}{7}$ to $\frac{6}{7}$? of $\frac{6}{7}$ to $\frac{1}{7}$? of $\frac{1}{8}$ to $\frac{6}{8}$? of $\frac{6}{8}$ to $\frac{1}{8}$? of $\frac{1}{9}$ to $\frac{6}{9}$? of $\frac{6}{9}$ to $\frac{1}{9}$? of $\frac{1}{10}$ to $\frac{6}{10}$? of $\frac{6}{10}$ to $\frac{1}{10}$?

20. What is the ratio of $\frac{1}{8}$ to $\frac{7}{8}$? of $\frac{7}{8}$ to $\frac{1}{8}$? of $\frac{1}{9}$ to $\frac{7}{9}$? of $\frac{7}{9}$ to $\frac{1}{9}$? of $\frac{1}{10}$ to $\frac{7}{10}$? of $\frac{7}{10}$ to $\frac{1}{10}$? of $\frac{1}{9}$ to $\frac{8}{9}$? of $\frac{8}{9}$ to $\frac{1}{9}$? of $\frac{1}{10}$ to $\frac{8}{10}$? of $\frac{8}{10}$ to $\frac{1}{10}$? of $\frac{1}{10}$ to $\frac{9}{10}$? of $\frac{9}{10}$ to $\frac{1}{10}$?

169. 1. If Alice can write 12 pages in 2 hours, how many pages can she write in 8 hours?

2. If George can ride 150 miles in 20 hours, how far can he ride in 4 hours?

3. If 6 acres of land yield 10 tons of hay, how many tons will 48 acres yield?

4. If 4 dozen eggs cost $1, what will 28 dozen cost?

5. Mary can knit 8 scallops in 2 hours; how many scallops can she knit in 16 hours?

6. A man can build 900 feet of stone wall in 81 days; how many feet can he build in 9 days?

7. A boy received 60 cents for 30 newspapers; how much did he receive for 5 at the same rate?

8. John has 72 cents, and Henry has 8 cents. If Henry can buy 10 pencils, how many can John buy at the same rate?

9. Walter can walk 48 miles in 16 hours. How far can he walk in 8 hours at the same rate?

10. If a lady makes 12 mats in 3 days, how many would she make in 18 days at the same rate?

11. If a boy can write 240 pages in 27 hours, how many pages can he write in 9 hours?

12. If $ 54 buys 36 books, how many books will $ 9 buy?

13. If $ 200 pays for 32 weeks' board, what will be the cost of 8 weeks' board?

14. If David can ride 80 miles in 12 hours, how far can he ride in 24 hours at the same rate?

15. If 84 acres of land yield 140 tons of hay, how many tons will 12 acres yield?

16. William can walk 20 miles in 10 hours; how far can he walk in 50 hours?

17. If a man can build 120 feet of fence in 7 days, how many feet can he build in 49 days?

18. If a dressmaker makes 40 dresses in 12 weeks, how many does she make in 6 weeks?

19. Jessie has 80 cents, and Laura has 10 cents. If Jessie can buy 96 pencils, how many can Laura buy?

20. If $ 21 pays for 3 weeks' board, what will pay for 9 weeks' board?

21. Mary paid $ 2.10 for 21 blank-books; what would 7 cost at the same rate?

22. Charlie received 10 cents for 5 newspapers; what would he receive for 20 papers at the same rate?

23. Carrie can read 20 pages in 11 minutes; how many pages can she read in 99 minutes?

170. 1. If $\frac{2}{3}$ of the distance between two places is 16 miles, what is $\frac{1}{3}$ of the distance? what is the whole?

2. If $\frac{2}{5}$ of the weight of a bar of iron is 40 pounds, what is $\frac{1}{5}$ of the weight? the whole weight?

3. If $\frac{3}{4}$ of the number of John's books is 21, what is $\frac{1}{4}$ of the number? the whole number?

4. If $\frac{3}{8}$ of the cost of a lot of land is $ 240, what is $\frac{1}{8}$ of the cost? the whole cost?

5. If $\frac{4}{5}$ of a bushel of wheat weighs 48 pounds, what is the weight of $\frac{1}{5}$ of a bushel? of a bushel?

6. If a vessel goes $\frac{4}{9}$ of its journey in 48 hours, in how many hours does it go $\frac{1}{9}$ of the journey? the whole journey?

7. If $\frac{5}{7}$ of Henry's money is $ 35, what is $\frac{1}{7}$ of his money? the whole?

8. If $\frac{5}{8}$ of the value of a horse and wagon is $ 250, what is $\frac{1}{8}$ of the value? the whole value?

9. George can do $\frac{6}{7}$ of a piece of work in 30 days. In how many days can he do $\frac{1}{7}$ of it? the whole?

10. Walter spent $\frac{1}{7}$ of his money and had 60 cents left. What part of his money had he left? What is $\frac{1}{7}$ of his money? the whole?

11. $\frac{7}{8}$ of a bushel of oats weighs 28 pounds; what is the weight of $\frac{1}{8}$ of a bushel? of a bushel?

12. $\frac{7}{8}$ of a bushel of corn weighs 49 pounds; what is the weight of $\frac{1}{8}$ of a bushel? of a bushel?

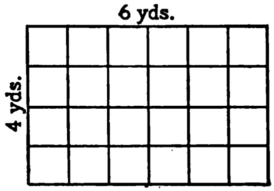
13. 24 is $\frac{8}{9}$ of what number? 56 is $\frac{8}{9}$ of what number?

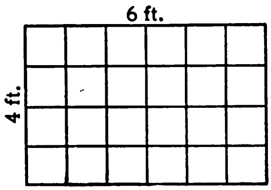
14. 54 is $\frac{9}{10}$ of what number? 72 is $\frac{9}{10}$ of what number?

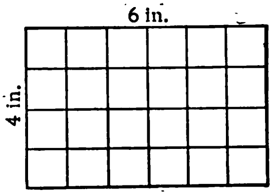
171. 1. What is the area of a floor which is 6 yards long and 4 yards wide?

2. What is the area of a flower bed which is 6 feet long and 4 feet wide?

3. What is the area of a rectangle which is 6 inches long and 4 inches wide?







4. What does the first drawing represent? the second? the third?

5. What is the difference in the drawings?

6. Is it necessary in order to represent anything by drawing, to draw its actual size?

7. How is size in maps and plans of houses represented?

8. In the first drawing what length represents 1 yard?

9. In the second drawing what length represents 1 foot?

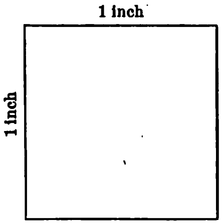
10. In the third drawing what length represents 1 inch?

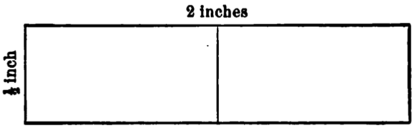
11. Draw a rectangle representing a floor 5 yards long and 4 yards wide, each yard represented by 1 inch.

12. Draw a rectangle representing a lot of land 80 feet long and 40 feet wide, each foot represented by $\frac{1}{4}$ inch.

13. Draw a square representing a rug 8 yards square, each yard represented by $\frac{1}{2}$ inch.

14. Draw a square or rectangle representing anything you choose, writing the actual length and width as in the illustration below, and the length which represents the inch, foot, or yard underneath the illustration.

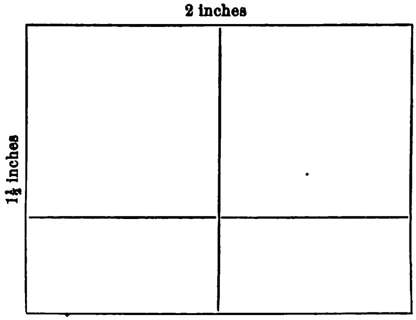




15. What is the area of the square in the illustration above? of the rectangle?

16. Draw a rectangle 4 inches long and ½ inch wide; what is its area?

17. Draw rectangles any number of inches long, not exceeding 24, and ½ inch wide. Write their areas underneath.



18. What is the area of this rectangle?

Draw each of the rectangles described in the following questions and write their areas underneath.

19. What is the area of a rectangle 4 inches long and $2\frac{1}{2}$ inches wide?

20. What is the area of a rectangle 10 inches long and $3\frac{1}{2}$ inches wide?

21. What is the area of a rectangle 16 inches long and $1\frac{1}{2}$ inches wide?

22. What is the area of a rectangle which is 8 inches long and $4\frac{1}{2}$ inches wide?

23. What is the area of a rectangle which is 12 inches long and $8\frac{1}{2}$ inches wide?

24. What is the area of a rectangle which is 20 inches long and $6\frac{1}{2}$ inches wide?

SECTION XIII

DIVISION

172. 1. At 2 cents each, how many pencils can be bought for a given amount of money?

2. How do you find how many times 2 is contained in a number?

3. If 3 chairs cost a certain sum of money, what would 1 cost?

4. How do you find $\frac{1}{3}$ of a number?

Finding how many times one number is contained in another, or finding one of the equal parts of a number, is called DIVISION.

The number divided is called the DIVIDEND.

The number by which the dividend is divided is called the DIVISOR.

The result is called the QUOTIENT.

$4 \div 2$ means either, How many 2's are there in 4, or $\frac{1}{2}$ of $4 = ?$

$\$4 \div 2$ means $\frac{1}{2}$ of \$4.

$\$4 \div \$2$ means, How many times is \$2 contained in \$4?

5. Give the meaning of these forms:

$2\underline{)19}$ $\quad$ $2\underline{)87\text{ acres}}$ $\quad$ $\$2\underline{)\$46}$ $\quad$ $\$.07\underline{)\$3.81}$

2 *is contained in* 5, 2 *times and* 1 *remainder, or* $2\frac{1}{2}$ *times.*

$\frac{1}{2}$ *of* 5 *is* $2\frac{1}{2}$.

When division is finding how many times one number is contained in another, the remainder may be written separately, or made a part of the quotient, as 2, 1 *rem. or* $2\frac{1}{2}$.

When division is finding one of the equal parts of a number, there can be no remainder.

6. 212,927 ÷ 11 = ?
7. \$3,240.06 ÷ 11 = ?
8. 384,590 ÷ 11 = ?
9. 835,498 ÷ 11 = ?
10. 419,962 ÷ 11 = ?
11. \$7387.49 ÷ \$.11 = ?
12. 498,188 ÷ 11 = ?
13. 917,231 ÷ 11 = ?
14. \$57,957.02 ÷ \$.11 = ?
15. 844,827 ÷ 11 = ?
16. $\frac{1}{11}$ of \$4660.04 = ?
17. 688,176 ÷ 11 = ?
18. $\frac{1}{11}$ of 107,525 = ?
19. 103,524 ÷ 11 = ?
20. 6,305,334 ÷ 11 = ?
21. \$4315.63 ÷ \$.11 = ?
22. 535,165 ÷ 11 = ?
23. 726,690 ÷ 11 = ?
24. 961,748 ÷ 11 = ?
25. 379,918 ÷ 11 = ?

173. 1. 821,039 ÷ 12 = ?
2. \$1132.56 ÷ \$.12 = ?
3. 210,033 ÷ 12 = ?
4. $\frac{1}{12}$ of 790,008 = ?
5. 952,349 ÷ 12 = ?
6. $\frac{1}{12}$ of \$6848.40 = ?
7. \$5969.64 ÷ \$.12 = ?
8. $\frac{1}{12}$ of 882,699 = ?
9. 8,112,620 ÷ 12 = ?
10. 346,278 ÷ 12 = ?
11. \$1112.16 ÷ 12 = ?
12. \$6467.88 ÷ \$.12 = ?
13. 305,837 ÷ 12 = ?
14. 572,723 ÷ 12 = ?
15. 925,611 ÷ 12 = ?
16. $\frac{1}{12}$ of \$357,156 = ?
17. $\frac{1}{12}$ of \$3551.43 = ?
18. 387,793 ÷ 12 = ?
19. 181,462 ÷ 12 = ?
20. 105,445 ÷ 12 = ?
21. \$9385.69 ÷ 12 = ?
22. \$8939.04 ÷ 12 = ?
23. \$1744.44 ÷ \$.12 = ?
24. 949,537 ÷ 12 = ?

174. 1. How do we find $\frac{1}{12}$ of a number?

2. How do we find how many times 12 is contained in a number?

3. How do we find $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$, $\frac{1}{7}$, $\frac{1}{8}$, $\frac{1}{9}$, $\frac{1}{10}$, or $\frac{1}{11}$ of a number?

4. How do we find how many times 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11 is contained in a number?

We divide by the numbers from 2 *to* 12 *by* SHORT DIVISION.

If we wish to divide by numbers larger than 12, *we use the process called* LONG DIVISION.

a

$$\begin{array}{r} 12)\underline{876{,}945\;\;} \\ 73{,}078\tfrac{9}{12} \end{array}$$

b

$$\begin{array}{r} 73{,}078\tfrac{9}{12} \\ 12\overline{)876{,}945} \\ \underline{84}\phantom{6{,}945} \\ 36\phantom{{,}945} \\ \underline{36\phantom{{,}9}} \\ 94 \\ \underline{84} \\ 105 \\ \underline{96} \\ 9 \end{array}$$

Compare these examples.

5. What did we find out in example *a*? in example *b*?

Observe that in example *b* the multiplications and subtractions that we thought in example *a* are written out in full.

Perform these examples by both short division and long division, comparing the processes.

6. 7,345,623 ÷ 11 = ?
7. 4,972,835 ÷ 11 = ?
8. 573,849 ÷ 11 = ?
9. 798,647 ÷ 11 = ?
10. 943,756 ÷ 11 = ?
11. 7,345,623 ÷ 12 = ?
12. 4,972,835 ÷ 12 = ?
13. 573,849 ÷ 12 = ?
14. 798,647 ÷ 12 = ?
15. 943,756 ÷ 12 = ?

NOTE: The examples in exercises 172 and 173 may be used in the same manner, until the written form of long division and the order of processes are familiar to the pupils.

175.

a

$$\begin{array}{r} 5,607\frac{5}{13} \\ 13\overline{)72,896} \\ \underline{65} \\ 78 \\ \underline{78} \\ 96 \\ \underline{91} \\ 5 \end{array}$$

b

$$\begin{array}{r} 3,644\frac{16}{20} \\ 20\overline{)72,896} \\ \underline{60} \\ 128 \\ \underline{120} \\ 89 \\ \underline{80} \\ 96 \\ \underline{80} \\ 16 \end{array}$$

Observe examples *a* and *b*.

1. In dividing by numbers larger than those whose multiples we know to the ninth, how do we know what figure to place in the quotient?

2. Perform examples *a* and *b* aloud.

3. 69,836 ÷ 13 = ?
4. 69,836 ÷ 20 = ?
5. 46,079 ÷ 13 = ?
6. 46,079 ÷ 20 = ?
7. 36,091 ÷ 13 = ?
8. 36,091 ÷ 20 = ?
9. 97,083 ÷ 13 = ?
10. 97,083 ÷ 20 = ?
11. 87,059 ÷ 13 = ?
12. 87,059 ÷ 20 = ?
13. 93,976 ÷ 13 = ?
14. 93,976 ÷ 20 = ?
15. 67,096 ÷ 13 = ?
16. 67,096 ÷ 20 = ?
17. 84,965 ÷ 13 = ?
18. 84,965 ÷ 20 = ?

176. 1. 72,896 ÷ 14 = ?
2. 72,896 ÷ 30 = ?
3. 69,836 ÷ 14 = ?
4. 69,836 ÷ 30 = ?
5. 46,079 ÷ 14 = ?
6. 46,079 ÷ 30 = ?
7. 97,083 ÷ 14 = ?
8. 97,083 ÷ 30 = ?

9. 87,059 ÷ 14 = ?
10. 87,059 ÷ 30 = ?
11. 93,976 ÷ 14 = ?
12. 93,976 ÷ 30 = ?
13. 67,096 ÷ 14 = ?
14. 67,096 ÷ 30 = ?
15. 36,091 ÷ 14 = ?
16. 36,091 ÷ 30 = ?
17. 84,965 ÷ 14 = ?
18. 84,965 ÷ 30 = ?

177. 1. 72,896 ÷ 15 = ?
2. 72,896 ÷ 40 = ?
3. 69,836 ÷ 15 = ?
4. 69,836 ÷ 40 = ?
5. 46,079 ÷ 15 = ?
6. 46,079 ÷ 40 = ?
7. 36,091 ÷ 15 = ?
8. 36,091 ÷ 40 = ?
9. 97,083 ÷ 15 = ?
10. 97,083 ÷ 40 = ?
11. 87,059 ÷ 15 = ?
12. 87,059 ÷ 40 = ?
13. 93,976 ÷ 15 = ?
14. 93,976 ÷ 40 = ?
15. 67,096 ÷ 15 = ?
16. 67,096 ÷ 40 = ?
17. 84,965 ÷ 15 = ?
18. 84,965 ÷ 40 = ?

178. 1. 72,896 ÷ 16 = ?
2. 72,896 ÷ 50 = ?
3. 69,836 ÷ 16 = ?
4. 69,836 ÷ 50 = ?
5. 46,079 ÷ 16 = ?
6. 46,079 ÷ 50 = ?
7. 36,091 ÷ 16 = ?
8. 36,091 ÷ 50 = ?
9. 97,083 ÷ 16 = ?
10. 97,083 ÷ 50 = ?
11. 87,059 ÷ 16 = ?
12. 87,059 ÷ 50 = ?
13. 93,976 ÷ 16 = ?
14. 93,976 ÷ 50 = ?
15. 67,096 ÷ 16 = ?
16. 67,096 ÷ 50 = ?
17. 84,965 ÷ 16 = ?
18. 84,965 ÷ 50 = ?

179. 1. 72,896 ÷ 17 = ?
2. 72,896 ÷ 60 = ?
3. 69,836 ÷ 17 = ?
4. 69,836 ÷ 60 = ?

5. 46,079 ÷ 17 = ?
6. 46,079 ÷ 60 = ?
7. 36,091 ÷ 17 = ?
8. 36,091 ÷ 60 = ?
9. 97,083 ÷ 17 = ?
10. 97,083 ÷ 60 = ?
11. 87,059 ÷ 17 = ?
12. 87,059 ÷ 60 = ?
13. 93,976 ÷ 17 = ?
14. 93,976 ÷ 60 = ?
15. 67,096 ÷ 17 = ?
16. 67,096 ÷ 60 = ?
17. 84,965 ÷ 17 = ?
18. 84,965 ÷ 60 = ?

180. 1. 72,896 ÷ 18 = ?
2. 72,896 ÷ 70 = ?
3. 69,836 ÷ 18 = ?
4. 69,836 ÷ 70 = ?
5. 46,079 ÷ 18 = ?
6. 46,079 ÷ 70 = ?
7. 36,091 ÷ 18 = ?
8. 36,091 ÷ 70 = ?
9. 97,083 ÷ 18 = ?
10. 97,083 ÷ 70 = ?
11. 87,059 ÷ 18 = ?
12. 87,059 ÷ 70 = ?
13. 93,976 ÷ 18 = ?
14. 93,976 ÷ 80 = ?
15. 67,096 ÷ 18 = ?
16. 67,096 ÷ 80 = ?
17. 84,965 ÷ 18 = ?
18. 84,965 ÷ 80 = ?

181. 1. 72,896 ÷ 19 = ?
2. 72,896 ÷ 80 = ?
3. 69,836 ÷ 19 = ?
4. 69,836 ÷ 80 = ?
5. 46,079 ÷ 19 = ?
6. 46,079 ÷ 80 = ?
7. 36,091 ÷ 19 = ?
8. 36,091 ÷ 90 = ?
9. 97,083 ÷ 19 = ?
10. 97,083 ÷ 90 = ?
11. 87,059 ÷ 19 = ?
12. 87,059 ÷ 90 = ?
13. 93,976 ÷ 19 = ?
14. 93,976 ÷ 90 = ?
15. 67,096 ÷ 19 = ?
16. 67,096 ÷ 90 = ?
17. 84,965 ÷ 19 = ?
18. 84,965 ÷ 90 = ?

182. 1. 867,254 ÷ 21 = ?
2. 739,363 ÷ 81 = ?
3. 389,642 ÷ 41 = ?
4. 768,482 ÷ 31 = ?
5. 374,798 ÷ 71 = ?
6. 295,698 ÷ 51 = ?
7. 839,028 ÷ 61 = ?
8. 458,729 ÷ 91 = ?
9. 948,736 ÷ 32 = ?
10. 873,649 ÷ 42 = ?
11. 500,006 ÷ 62 = ?
12. 828,609 ÷ 92 = ?
13. 736,340 ÷ 82 = ?
14. 879,076 ÷ 52 = ?
15. 769,604 ÷ 22 = ?
16. 110,209 ÷ 72 = ?

183. 1. 856,021 ÷ 93 = ?
2. 796,021 ÷ 23 = ?
3. 973,082 ÷ 53 = ?
4. 468,091 ÷ 73 = ?
5. 300,009 ÷ 33 = ?
6. 780,063 ÷ 83 = ?
7. 400,208 ÷ 43 = ?
8. 598,798 ÷ 63 = ?
9. 895,914 ÷ 54 = ?
10. 875,808 ÷ 24 = ?
11. 796,842 ÷ 84 = ?
12. 890,763 ÷ 94 = ?
13. 692,083 ÷ 74 = ?
14. 453,902 ÷ 64 = ?
15. 200,009 ÷ 34 = ?
16. 329,032 ÷ 44 = ?

184.

a

$$\begin{array}{r} 21 \\ \$\,43)\overline{\$\,903} \\ 86 \\ \hline 43 \\ 43 \\ \hline \end{array}$$

b

$$\begin{array}{r} \$\,21 \\ 43)\overline{\$\,903.} \\ 86 \\ \hline 43 \\ 43 \\ \hline \end{array}$$

c

$$\begin{array}{r} \$\,2.57\frac{12}{32} \\ 32)\overline{\$\,82.36} \\ 64 \\ \hline 183 \\ 160 \\ \hline 236 \\ 224 \\ \hline 12 \end{array}$$

d

$$\begin{array}{r@{}l}
 & \,257 \\
\$.32) & \overline{\$\,82.36} \\
 & \underline{64} \\
 & 183 \\
 & \underline{160} \\
 & 236 \\
 & \underline{224} \\
 & 12\text{¢ } \textit{rem.}
\end{array}$$

e

$$\begin{array}{r@{}l}
 & \$\,4.53\tfrac{25}{75} \\
75) & \overline{\$\,340.00} \\
 & \underline{300} \\
 & 400 \\
 & \underline{375} \\
 & 250 \\
 & \underline{225} \\
 & 25
\end{array}$$

1. $ 43 is contained in $ 903 how many times?

2. If $ 903 is divided into 43 equal parts, how many dollars are in each part?

3. If $ 82.36 is divided into 32 equal parts, what is the value of each part?

4. How many times is $ .32 contained in $ 82.36?

5. If $ 340 is divided into 75 equal parts, what is the value of each part?

6. Compare examples *a* and *b*; what is the difference in the form? in the meaning?

7. Compare examples *c* and *d*; what is the difference in the form? in the meaning?

8. When is the quotient of the same kind as the dividend? When is it not?

Observe, in example *e*, the method of carrying out the division to cents in dividing into equal parts.

In performing the following examples, observe carefully the meaning of each, and point off carefully.

9. 330,895 ÷ 65 = ?

10. $ 8395 ÷ 85 = ? (carry to cents)
11. $ 6744 ÷ 95 = ? (carry to cents)
12. 374,500 ÷ 55 = ?
13. $ 6407.50 ÷ $ .25 = ?
14. $ 7229.13 ÷ $ .75 = ?
15. 258,964 ÷ 35 = ?
16. $ 3769.20 ÷ 45 = ?

185. 1. 220,927 ÷ 26 = ?
2. $ 7015.68 ÷ $ .96 = ?
3. 414,368 ÷ 46 = ?
4. $ 5528.99 ÷ 56 = ?
5. $6542 ÷ 76 = ?
6. $ 1115.28 ÷ $ .36 = ?
7. 533,947 ÷ 66 = ?
8. 791,922 ÷ 86 = ?
9. $ 6312.72 ÷ $ .87 = ?
10. 509,438 ÷ 67 = ?
11. $ 3648.48 ÷ 37 = ?
12. 236,022 ÷ 77 = ?
13. 192,525 ÷ 47 = ?
14. $ 2453.49 ÷ $ .27 = ?
15. 182,250 ÷ 57 = ?
16. $ 5900.51 ÷ 97 = ?

186. 1. 328,611 ÷ 38 = ?
2. 419,260 ÷ 58 = ?
3. 215,173 ÷ 28 = ?
4. 624,798 ÷ 98 = ?
5. $ 2590 ÷ 48 = ?
6. $ 3948.76 ÷ $ .68 = ?
7. $ 2427.63 ÷ 88 = ?
8. 759,470 ÷ 78 = ?
9. $ 2796.40 ÷ 29 = ?
10. 556,830 ÷ 69 = ?
11. 321,401 ÷ 79 = ?
12. 309,175 ÷ 49 = ?
13. $ 6618.57 ÷ $ .89 = ?
14. $ 4639.76 ÷ $ .59 = ?
15. $ 3313.97 ÷ 39 = ?
16. $ 8917.92 ÷ 99 = ?

SECTION XIV

WRITTEN EXERCISES

187. 1. Write in figures and add:

Nine hundred thirty-eight thousand, four hundred sixty-five.
Seven hundred thirty-one thousand, five hundred ninety-two.
Six hundred seventy-five thousand, four hundred sixty-eight.
Five hundred thirty-seven thousand, five hundred ninety-four.
Eight hundred seventy-two thousand, six hundred ninety-seven.
Nine hundred thirteen thousand, eleven.
Eight hundred forty-three thousand, sixty-seven.
Three hundred ninety-five thousand, seven hundred twenty-one.

2. 5,031,286 − 2,097,092 = ?
3. $ 807.06 − $ 293.09 = ?
4. 97,504 × 329 = ?
5. $ 681.32 × 293 = ?
6. 794,956 ÷ 2 = ?
7. $ 6210.05 ÷ 7 = ?
8. $ 7949.56 ÷ $ .11 = ?
9. 234,175 ÷ 29 = ?
10. 662,000 ÷ 87 = ?
11. $ 1050.56 ÷ 56 = ?

12. If a boy earns $ 7 a week and spends $ 6.25, how many weeks would it take him to save $ 48.75?

13. A flower bed contains 128 square feet; it is 8 feet wide; how long is it?

14. A piece of land contains 3360 square feet; it is 42 feet wide; how long is it?

15. How many square inches of glass are in a window which contains 12 panes, each pane 11 inches long and 8 inches wide?

188. 1. Write in figures and add:

Five hundred seventy-one dollars, sixty-three cents.
Eighty-four dollars, ninety-seven cents.

Seven hundred thirty-eight dollars, six cents.
Twenty-five dollars.
Nine dollars, thirty-eight cents.
Four hundred sixty-five dollars.
Four dollars, sixty-five cents.
Seventy-two dollars, eighty-seven cents.

2. 7,063,842 − 1,975,096 = ?
3. $ 5,030.09 − $ 275.26 = ?
4. 29,416 × $ 50.07 = ?
5. 70,835 × 7050 = ?
6. 347,899 ÷ 5 = ?
7. $ 5110.32 ÷ $ .08 = ?
8. 897,677 ÷ 12 = ?
9. 443,831 ÷ 46 = ?
10. 115,400 ÷ 35 = ?
11. $ 4060 ÷ 24 = ?

12. A man had 875 sheep; he sold $\frac{3}{5}$ of them. How many had he left?

Observe the form of this bill:

BOSTON, MASS., Feb. 1, 1901.

MR. FRANK WRIGHT,

Bought of CHARLES A. WALL & CO.,

2 doz. bananas @ 24¢	$ .48
2 lbs. dates @ 8¢	.16
2 lbs. coffee @ 34¢	.68
1 box crackers	.16
2 doz. eggs @ 38¢	.76
1 lb. tea	.60
1 bu. potatoes	1.00
	$ 3.84

Received payment,

CHARLES A. WALL & CO.

13. Mr. John Griffin bought of James Monroe the following named goods: 1 table for $ 18, 6 chairs at $ 6 each, 2 chairs at $ 8 each, 1 sideboard for $ 24, 1 rug for $ 28, 2 lamps for $ 2.75 each. Make out his bill and receipt it.

14. If 14 dozen eggs cost $ 4.48, what is the cost of 1 dozen? of 25 dozen?

15. If a railroad train goes at the rate of 462 miles in 11 hours, what is the rate per hour? how far would it go in 75 hours at the same rate?

189. 1. Write in figures and add:

Nine hundred sixty-eight thousand, seven hundred twenty-three.
Five hundred forty-seven thousand, six hundred forty-eight.
Two hundred seventy-five thousand, three hundred ninety-six.
Nine hundred thirty-eight thousand, four hundred sixty-two.
Five hundred seventy-three thousand, two hundred ninety-one.
Four hundred eighty-six thousand, seven hundred fifty-two.
Nine hundred thirty-seven thousand, eighty-one.
Six hundred thousand, two hundred nine.

2. 8,000,371 − 2,564,085 = ?
3. $ 7834.29 − $ 1953.49 = ?
4. 43,972 × 486 = ?
5. 86,501 × 64,800 = ?
6. 319,875 ÷ 4 = ?
7. $ 7013.24 ÷ 9 = ?
8. 176,930 ÷ 11 = ?
9. 708,780 ÷ 78 = ?
10. $ 5521.96 ÷ 63 = ?
11. 126,499 ÷ 58 = ?

12. In a hall are 8 rows of benches, 25 benches in each row. Each bench seats 6 persons; how many persons can be seated in the hall?

13. A man bought 9 lbs. of beef for 25¢ a pound, and gave in payment a ten-dollar bill; how much change should he receive?

14. A dealer bought goods for $ 720 and sold them so as to gain $\frac{1}{6}$ of the cost; for how much did he sell them?

15. A dealer bought 20 barrels of flour for $ 5 a barrel. He sold 12 barrels for $ 6 a barrel and the remainder for $ 4½ a barrel. How much did he gain?

190. 1. Write in figures and add:

Eight hundred seventy-five dollars, forty-six cents.
Thirty-two dollars, eighty-seven cents.
Five hundred ninety-seven dollars, twenty-three cents.
Eighty-nine dollars, nine cents.
Three hundred twenty dollars, two cents.
Seventy-five dollars, sixty-three cents.
Two hundred forty-eight dollars, ninety-seven cents.
Ninety-three dollars, sixty-eight cents.

2. 7,685,270 − 3,298,096 = ?
3. $ 8003.36 − $ 2151.98 = ?
4. 94,058 × 20,300 = ?
5. 76,132 × 3002 = ?
6. 932,983 ÷ 5 = ?
7. $ 4540.41 ÷ $ .07 = ?
8. 333,059 ÷ 12 = ?
9. 752,900 ÷ 94 = ?
10. 472,160 ÷ 52 = ?
11. $ 3332.38 ÷ 54 = ?

12. A lot of land is 84 feet long and 45 feet wide. What is its value at 35 ¢ a square foot?

13. A room is 15 feet long and 12 feet wide. What would it cost to lay a new floor at 75¢ a square foot?

14. What would it cost to cover the same floor with oilcloth at 75¢ a square yard?

15. In one room are 7 rows of benches, 24 benches in each row, and in another are 8 rows of benches, 23 benches in each row. How many benches are in both rooms?

191. 1. Write in figures and add:

Four million, eight hundred twenty thousand, seven hundred thirty-eight.
Seven hundred thousand, ninety-five.
Eight hundred sixty-two thousand, four hundred nine.
Five million, thirty-eight thousand, seventy-two.
Four hundred sixty-five thousand, nine hundred seventy-eight.
Thirty-six thousand, ninety-nine.
Eight hundred fifty-three thousand, seven hundred twenty-six.
Nine million, nine.

2. 8,437,068 – 2,956,092 = ?
3. \$ 5010.10 – \$ 270.29 = ?
4. 57,908 × 45,600 = ?
5. 63,042 × 60,504 = ?
6. 176,930 ÷ 3 = ?
7. 702,319 ÷ 8 = ?
8. 131,264 ÷ 11 = ?
9. 670,488 ÷ 91 = ?
10. \$ 5171.25 ÷ \$ .75 = ?
11. \$ 912 ÷ 21 = ?

12. A man has a flock of 948 sheep; $\frac{1}{4}$ of them are black and the rest white. How many white ones has he?

13. A man left \$ 41,040 to his wife and 4 children. He left $\frac{1}{3}$ of it to his wife, and the remainder to be divided equally among his children. How much did each receive?

14. If a man can earn \$ 840 in 7 months, how much can he earn in 1 month? in a year?

15. If a man earns \$ 720 in 6 months, what does he earn in a year? (Observe relation of 12 to 6.)

192. 1. Write in figures and add:

Seven hundred sixty-eight dollars, four cents.
Fifty-nine dollars, eighty-seven cents.
Three hundred ninety-four dollars, thirty-eight cents.
Seventy-two dollars, ninety-nine cents.
Eighty-seven cents.
Five hundred ninety-eight dollars.
Thirty-seven dollars, two cents.
Ninety-six dollars, ten cents.

2. $3,010,001 - 275,843 = ?$
3. $\$6211.80 - \$375.63 = ?$
4. $84,301 \times 789 = ?$
5. $25,697 \times 89,700 = ?$
6. $241,789 \div 5 = ?$
7. $264,562 \div 9 = ?$
8. $842,986 \div 12 = ?$
9. $670,800 \div 68 = ?$
10. $\$3744.87 \div 43 = ?$
11. $\$3161.75 \div 52 = ?$

12. A man bought 40 pounds of butter of one man, 31 pounds of another, 16 pounds of another, 27 pounds of another, and 14 pounds of another. He packed it in boxes, each containing 8 pounds; how many boxes did it take?

13. A man had a piece of cloth 108 yards long. He cut off 23 yards, and sold the remainder for 25 cents a yard; how much did he receive for it?

14. A dealer bought oranges for 30 cents a dozen and sold them for three cents each; what did he gain on 15 dozen?

15. Mr. John Carpenter bought of Mr. James Horton the following named goods: 2 pounds of coffee at 32 cents a pound, 1 dozen oranges for 36 cents, 3 pounds of steak at 28 cents a pound, 3 cans of tomatoes at 15 cents each, 1 bushel of potatoes for 92 cents, 6 pounds of rice at 9 cents a pound. Make out his bill and receipt it.

193. 1. Write in figures and add:

Seven hundred twenty-three thousand, eight hundred forty-one.
Nine hundred seventy-five thousand, six hundred thirty-eight.
Two hundred forty-six thousand, five hundred ninety-two.
Eight hundred forty-three thousand, seven hundred twenty-six.
Four hundred ninety-seven thousand, three hundred forty-eight.
Two hundred sixty-three thousand, seven hundred twenty-four.
Five hundred thirty-eight thousand, six hundred fifty-nine.
Two hundred eighty-three thousand, three hundred fifty-two.

2. 8,463,708 − 2,097,582 = ?
3. $ 975 − $ 9.75 = ?
4. $ 639.25 × 5400 = ?
5. 81,740 × $ 40.05 = ?
6. 537,409 ÷ 6 = ?
7. 128,490 ÷ 7 = ?
8. $ 5738.31 ÷ 11 = ?
9. 868,200 ÷ 99 = ?
10. 156,576 ÷ 56 = ?
11. $ 340 ÷ 75 = ?

12. If a steamer goes 48 miles in 3 hours, how far would it go in 6 hours at the same rate? In how many ways can you solve this problem? Which is the better way?

13. If the steamboat goes 48 miles in 3 hours, how far would it go in 8 hours at the same rate? Which is the better way to solve this problem?

14. How many square inches are there in the top of a table which is 3 feet long and 2 feet wide?

15. At 3 cents a square inch what is the cost of a square foot of gold leaf?

194. 1. Write in figures and add:

Sixty-eight dollars, seventy-five cents.
Two hundred thirty-six dollars, forty-two cents.

One hundred eighty-nine dollars, thirty-seven cents.
Forty-six dollars, eight cents.
Ninety-seven cents.
Five dollars, thirty-eight cents.
Five hundred thirty-eight dollars.
Eight hundred fifty-nine dollars, seventy-five cents.

2. $5{,}010{,}010 - 327{,}209 = ?$
3. $\$5400 - \$1263.27 = ?$
4. $58{,}137 \times \$97.30 = ?$
5. $36{,}902 \times 3079 = ?$
6. $\$5738.31 \div 2 = ?$
7. $\$2339.49 \div \$.08 = ?$
8. $\$593{,}211 \div 12 = ?$
9. $233{,}759 \div 27 = ?$
10. $479{,}460 \div 82 = ?$
11. $\$82.36 \div 32 = ?$

12. A man having 640 acres of land sold $\frac{5}{8}$ of it to one man, $\frac{1}{8}$ to another, and kept the remainder. How many acres were in each of the three parts?

13. A man had $336. He put $\frac{5}{7}$ of it in the bank and with the remainder bought sheep at $8 each. How many sheep did he buy?

14. A dealer bought 8 boxes of oranges, each containing 4 dozen. If he sold them for 3 cents apiece, what did he receive for them?

15. John spent 170 days in New York; how many weeks did he spend there?

195. 1. Write in figures and add:

Eight hundred forty-six thousand, seven hundred twenty-three.
Two hundred ninety-seven thousand, six hundred forty-eight.
Seven hundred thirty-four thousand, five hundred ninety-six.
Eight hundred forty-two thousand, six hundred seventy-three.

Nine hundred thirty-four thousand, eight hundred forty-six.
Five hundred ninety-four thousand, three hundred seventy-two.
Eight hundred fifty-six thousand, nine hundred fifty-seven.
Three hundred ninety-four thousand, two hundred nineteen.

2. $6{,}084{,}725 - 3{,}265{,}089 = ?$
3. $\$6008 - \$89.26 = ?$
4. $49{,}031 \times 2860 = ?$
5. $27{,}856 \times 6082 = ?$
6. $983{,}271 \div 6 = ?$
7. $\$1165.37 \div 9 = ?$
8. $\$9639.79 \div \$.11 = ?$
9. $134{,}760 \div 34 = ?$
10. $\$3074.76 \div \$.81 = ?$
11. $\$28 \div 32 = ?$

12. A man bought a lot for $ 1200, built a house on it for $ 4800, then sold the property so as to gain $\frac{1}{6}$ of the cost. What was the whole cost, gain, and selling price?

13. If 12 yards of cloth cost 84 cents, how many yards can be bought for $ 1.68?

14. A man had a farm of 810 acres. He sold $\frac{5}{9}$ of it for $ 40 an acre. What did he receive for the part sold?

15. How many square yards of oilcloth are required to cover a floor 18 feet long and 15 feet wide?

196. 1. Write in figures and add:

Four hundred sixty-eight dollars, twenty cents.
Thirty-four dollars, seventy-five cents.
Nine hundred seventy-five dollars, sixty-three cents.
Eighty-nine dollars, forty-six cents.
Four hundred twenty-seven dollars, one cent.
Eighty-six dollars, eight cents.
Nine hundred seventy-five dollars.
Nine dollars, seventy-five cents.

2. $7{,}046{,}208 - 3{,}295{,}763 = ?$
3. $\$\,8040.01 - \$\,296.05 = ?$
4. $35{,}429 \times 9706 = ?$
5. $17{,}068 \times \$\,79.60 = ?$
6. $474{,}692 \div 5 = ?$
7. $\$\,3281.23 \div 7 = ?$
8. $834{,}765 \div 12 = ?$
9. $518{,}970 \div 59 = ?$
10. $377{,}546 \div 48 = ?$
11. $\$\,97.48 \div 63 = ?$

12. Which floor has the greater area, that of a room 16 feet long and 14 feet wide, or that of a room 18 feet long and 12 feet wide? How much greater?

13. A man had 320 acres of land. He sold $\frac{2}{5}$ of it for $ 87 an acre and the remainder for $ 96 an acre. What did he receive for it all?

14. Mr. George R. Smith bought of Brown and Robinson the following named goods: 6 curtains at $ 1.25 each, 1 carpet at $ 42.87, 2 rugs at $ 4.87 each, 1 rubber mat for $ .89, and a portière for $ 4. Make out his bill and receipt it.

15. A man bought a carriage for $ 346. He spent $ 54 for improvements on it, then sold it for $ 387.50; did he gain or lose, and how much?

197. 1. Write in figures and add:

Two million, eighty-three thousand, seven hundred twenty-one.
Nine hundred eight thousand, ninety-two.
Seventy-five thousand, six hundred eighty-nine.
Three million, eighty-seven thousand, four.
Eight hundred sixty thousand, nine hundred eight.
Ninety-two thousand, seven hundred thirty-eight.
Nine hundred eighty-nine thousand, six hundred forty-seven.
Ninety-three thousand, eight.

2. 8,209,010 − 4,191,327 = ?
3. $ 7060.08 − $ 2195.09 = ?
4. 82,056 × 354 = ?
5. 91,374 × 53,400 = ?
6. 418,255 ÷ 6 = ?
7. 621,517 ÷ 8 = ?
8. 571,192 ÷ 11 = ?
9. 4,352,990 ÷ 73 = ?
10. 219,900 ÷ 26 = ?
11. $ 42 ÷ 34 = ?

12. What is the distance in yards around a flower bed which is 18 feet long and 15 feet wide?

13. If a man earns $ 150 a month for 10 months, and spends $ 108 a month for 12 months, how much does he save in a year?

14. How many square inches are there in the surface of a pane of glass which is 2 feet square?

15. If a train goes 432 miles in 9 hours how far will it go in 27 hours at the same rate?

198. 1. Write in figures and add:

Four thousand, six hundred eighty dollars, twenty-seven cents.
Three hundred four dollars, nine cents.
Seven hundred eighty dollars, eighty-seven cents.
Three thousand ninety dollars, forty-six cents.
Eight hundred seventy-five dollars, ninety-two cents.
Sixty-three dollars, fifty cents.
Seven hundred fourteen dollars, twenty-eight cents.
Nineteen dollars, eleven cents.

2. 5,408,010 − 2,379,206 = ?
3. $ 640.08 − $ 72.92 = ?
4. 93,645 × $ 54.07 = ?
5. 72,810 × 4750 = ?
6. 131,264 ÷ 3 = ?
7. $ 5243.31 ÷ $ .09 = ?
8. $ 4678.28 ÷ 11 = ?
9. 745,990 ÷ 92 = ?
10. 5,026,580 ÷ 64 = ?
11. $ 99.19 ÷ 42 = ?

12. If 12 chairs are worth $ 84, what are 36 worth at the same rate?

13. If a dealer bought chairs for $ 8.75 each and sold them for $ 10 each, how much did he gain on a dozen?

14. How many things are a dozen? *A dozen dozen is called a* GROSS. How many things are a gross?

15. What would a dealer receive for a gross of pencils at 3 cents each?

199. 1. Write in figures and add:

Seven million, forty-eight thousand, eleven.
Two million, nineteen thousand, fifty-eight.
Seven hundred twenty-five thousand, fourteen.
Eight hundred sixty-four thousand, nine.
Three million, eight hundred forty-six.
Nine hundred forty-five thousand.
Seventy-two thousand, nine hundred eight.
Six hundred seventy-five thousand, eight hundred forty-three.

2. $8{,}469{,}230 - 2{,}593{,}078 = ?$
3. $ 5080.05 − $ 297.01 = ?
4. $75{,}843 \times 3260 = ?$
5. $ 269.01 × 2063 = ?
6. $194{,}395 \div 4 = ?$
7. $918{,}798 \div 7 = ?$
8. $563{,}259 \div 12 = ?$
9. $ 3306.32 ÷ $ .37 = ?
10. $ 5079.60 ÷ 85 = ?
11. $ 49.32 ÷ 54 = ?

12. If a man earns $ 25 a week and spends $ 22 a week, how many weeks will it take him to save $ 147?

13. If a man buys land for $ 4836, for what price must he sell it to gain $\frac{1}{6}$ of the cost?

14. If a piece of carpet contains 72 square feet and is a yard wide, how long is it?

15. What is the value of a lot of land 150 feet long and 80 feet wide, at 35 cents a square foot?

200. 1. Write in figures and add:

Seven thousand eighty dollars, eight cents.
Six hundred ninety dollars, seven cents.
Five thousand dollars, three cents.
Seventy-two dollars, eighty-five cents.
Eight hundred forty dollars.
Eight dollars, forty cents.
Two hundred nineteen dollars, fifty-nine cents.
Eighty-seven cents.

2. $5{,}096{,}008 - 2{,}139{,}762 = ?$
3. $\$8040.03 - \$865.39 = ?$
4. $53{,}216 \times 9800 = ?$
5. $47{,}908 \times 8009 = ?$
6. $539{,}276 \div 6 = ?$
7. $\$1323.68 \div \$.08 = ?$
8. $\$4259.01 \div 11 = ?$
9. $333{,}203 \div 71 = ?$
10. $\$7774 \div 96 = ?$
11. $\$84 \div 41 = ?$

12. If 8 men can do a piece of work in 336 days, how long would it take 48 men to do it?

13. If 36 men can do a piece of work in 240 days, how long would it take 9 men to do it?

14. If a boy can buy 7 marbles for a cent, how many marbles can he buy for half a dollar?

15. If a person traveled 96 miles by train, then walked $\frac{1}{8}$ as far, how far did he travel in all?

201. 1. Write in figures and add:

Two million, sixteen thousand, seven hundred twenty-five.

Three million, four thousand, eighty.

Ninety-six thousand, seven hundred twenty-eight.

Forty-nine thousand, eight hundred fifty-six.

Three hundred eighty-nine thousand, two hundred ninety-seven.

Five million, sixty-three thousand, eight hundred forty-one.

Three million, two hundred ninety-seven thousand, nine.

Four hundred sixty-eight thousand, ninety.

2. 7,840,639 − 2,936,295 = ?
3. $810.10 − $42.91 = ?
4. 54,972 × 8200 = ?
5. 81,306 × 2008 = ?
6. $3062.18 ÷ 4 = ?
7. 310,229 ÷ 9 = ?
8. 783,265 ÷ 12 = ?
9. $2848.10 ÷ $.38 = ?
10. $2421 ÷ 25 = ?
11. $85.12 ÷ 81 = ?

12. In a school building are 6 rooms, each containing 54 children. If they are all arranged for marching, 4 in a row, how many rows are there?

13. A milkman delivered 96 gallons of milk at 7 cents a quart; what did he receive for the milk?

14. A dealer sold 8 bushels of cranberries at 11 cents a quart; what did he receive for them?

15. Mrs. J. H. Cole bought of J. R. Jenks & Co. the following named goods: 1 tablecloth at $2.50, 6 yards of linen at 20 cents a yard, 1 dozen towels at 25 cents each, 1 dozen napkins for $2.50, 12 yards of crash at 8 cents a yard, and a tray cloth for $1.37. Make out her bill and receipt it.

202.

1. 43,760 ÷ 306 = ?
2. 89,563 ÷ 207 = ?
3. 485,760 ÷ 507 = ?
4. 596,978 ÷ 709 = ?
5. 292,700 ÷ 508 = ?
6. 309,260 ÷ 706 = ?
7. 711,690 ÷ 902 = ?
8. 641,634 ÷ 807 = ?
9. 515,500 ÷ 607 = ?
10. 429,952 ÷ 508 = ?
11. 395,999 ÷ 409 = ?
12. 774,092 ÷ 803 = ?
13. 317,646 ÷ 126 = ?
14. 3,207,596 ÷ 767 = ?
15. 2,100,415 ÷ 581 = ?
16. 1,787,185 ÷ 562 = ?

203.

a

$$\begin{array}{r}
429 \\
\$375)\$160{,}875 \\
\underline{1500} \\
1087 \\
\underline{750} \\
3375 \\
\underline{3375}
\end{array}$$

b

$$\begin{array}{r}
687 \\
\$594)\$408{,}424 \\
\underline{3564} \\
5202 \\
\underline{4752} \\
4504 \\
\underline{4158} \\
\$346 \text{ rem.}
\end{array}$$

c

$$\begin{array}{r}
417 \\
\$.23)\$96.00 \\
\underline{92} \\
40 \\
\underline{23} \\
170 \\
\underline{161} \\
9¢ \text{ rem.}
\end{array}$$

d

$$\begin{array}{r}
869 \\
\$5.74)\$4988.06 \\
\underline{4592} \\
3960 \\
\underline{3444} \\
5166 \\
\underline{5166}
\end{array}$$

e

$$\begin{array}{r}
845 \\
\$7.62)\$6439.15 \\
\underline{6096} \\
3431 \\
\underline{3048} \\
3835 \\
\underline{3810} \\
25¢ \text{ rem.}
\end{array}$$

f

$$\begin{array}{r}
897 \\
\$4.62)\$4147.00 \\
\underline{3696} \\
4510 \\
\underline{4158} \\
3520 \\
\underline{3234} \\
\$2.86 \text{ rem.}
\end{array}$$

g

$$\begin{array}{r}
\$6.27 \\
968)\$6069.36 \\
\underline{5808} \\
2613 \\
\underline{1936} \\
6776 \\
\underline{6776}
\end{array}$$

h

$$\begin{array}{r}
\$7.25\tfrac{98}{984} \\
984)\$7134.98\phantom{\tfrac{98}{984}} \\
\underline{6888}\phantom{.98\tfrac{98}{984}} \\
2469\phantom{8\tfrac{98}{984}} \\
\underline{1968}\phantom{8\tfrac{98}{984}} \\
5018\phantom{\tfrac{98}{984}} \\
\underline{4920}\phantom{\tfrac{98}{984}} \\
98\phantom{\tfrac{98}{984}}
\end{array}$$

i

$$\begin{array}{r}
\$3.87\tfrac{32}{764} \\
764)\$2957.00\phantom{\tfrac{32}{764}} \\
\underline{2292}\phantom{.00\tfrac{32}{764}} \\
6650\phantom{0\tfrac{32}{764}} \\
\underline{6112}\phantom{0\tfrac{32}{764}} \\
5380\phantom{\tfrac{32}{764}} \\
\underline{5348}\phantom{\tfrac{32}{764}} \\
32\phantom{\tfrac{32}{764}}
\end{array}$$

Observe examples *a*, *b*, and *c*.

1. How many times is $375 contained in $160,875?

2. How many acres of land at $375 an acre can be bought for $160,875?

3. How many acres can be bought for $408,424 at $594 an acre? What would be left?

4. At 23 cents each, how many books can be bought for $96, and what will be left?

5. When money is divided by money, what is the quotient? the remainder?

Observe examples *c* and *f*. In dividing dollars by cents, or by dollars and cents, the division must be carried out two places.

Observe examples *g*, *h*, and *i*.

6. When money is divided into two equal parts, what is the quotient? the remainder?

7. $1,730,599 ÷ $239 = ?

8. $33,704.10 ÷ $4.86 = ?

9. $64,764 ÷ $7.93 = ?

10. $21,444 ÷ $.28 = ?

11. $26,301 ÷ 67 = ?

12. $62,336.50 ÷ 93 = ?

13. $17,569 ÷ 45 = ?
14. $15,368.99 ÷ $3.05 = ?
15. $5,361,400 ÷ $841 = ?
16. $62,322.28 ÷ 76 = ?
17. $46,419 ÷ $.64 = ?
18. $62,654 ÷ $6.78 = ?

204. 1. Write in figures and add:

Four million, nine hundred sixty-five thousand, eight hundred forty.
Twenty-nine thousand, seven.
Eight hundred forty-three thousand, forty-one.
Ninety-six thousand, eight hundred forty-four.
Seven hundred thirty-six thousand, two hundred ninety-five.
Forty-eight thousand, one hundred twenty-nine.
Seven hundred thirty-four thousand, eighty-six.

2. $4020.75 – $965.08 = ?
3. 96,804 × $60.38 = ?
4. 57,203 × 8063 = ?
5. 357,864 ÷ 2 = ?
6. 753,849 ÷ 6 = ?
7. 129,399 ÷ 8 = ?
8. $829,825 ÷ $11 = ?
9. $9160.58 ÷ $.12 = ?
10. 2,384,316 ÷ 81 = ?
11. $18,991.88 ÷ $9.67 = ?
12. $13,253 ÷ 514 = ?

13. A man bought a lot of land 85 feet long and 50 feet wide, paying 35 cents a square foot. He sold it so as to gain $\frac{2}{5}$ of the cost; find the cost, the gain, and the selling price.

14. A dealer bought 78 bushels of cranberries at $1.25 a bushel, and sold them at $.40 a peck; what did he gain?

15. What is the distance in yards around a field which is 320 feet long and 235 feet wide?

16. If a railroad train goes 1566 miles in 27 hours, how far does it go in 16 hours?

205. 1. $7096.84 + $528.04 + $75.90 + $8042.01 + $484.97 + $86.04 + $739.86 + $842 = ?

2. 3,010,010 − 265,084 = ?
3. 75,391 × 9005 = ?
4. 26,084 × 5900 = ?
5. 327,170 ÷ 3 = ?
6. $3980.14 ÷ $.07 = ?
7. $6340.71 ÷ 8 = ?
8. 829,825 ÷ 11 = ?
9. $6770.75 ÷ 12 = ?
10. 2,447,583 ÷ 39 = ?
11. $15,967.12 ÷ 52 = ?
12. $10,311.08 ÷ $1.59 = ?
13. 3,892,867 ÷ 956 = ?

14. How many boxes are required to pack 75 dozen hats, 6 hats in a box?

15. A piece of cloth contained 222 yards. If $\frac{3}{8}$ of it was sold at 87 cents a yard, what was received for it?

16. A man sold $\frac{5}{9}$ of a piece of land 927 feet long and 842 feet wide. How many square feet were sold and how many remained?

206. 1. Write in figures and add:

Eight hundred sixty thousand, two hundred forty-one.
Nine hundred seventy-five thousand, three hundred eighty-nine.
Six hundred eighty-seven thousand, forty-five.
Nine hundred ninety-eight thousand, seven hundred thirty-four.
Eight hundred sixty-four thousand, five hundred sixty-nine.
Nine hundred thirty-six thousand, eighty-four.
Seventy thousand, eight.
Eight hundred sixty-five thousand, nine hundred ninety-nine.

2. 456,710 − 69,526 = ?
3. 38,075 × $7162 = ?
4. 26,316 × 2676 = ?
5. $335,636 ÷ $6 = ?

6. $3380.50 ÷ $.06 = ?
7. 263,920 ÷ 9 = ?
8. $2590.21 ÷ 11 = ?
9. 752,783 ÷ 12 = ?
10. $87,428 ÷ $.91 = ?
11. 2,392,740 ÷ 324 = ?
12. 1,214,898 ÷ 473 = ?
13. $45 ÷ $.56 = ?

14. Mr. Jones had $35,678; he left $\frac{1}{2}$ of it to his wife and the remainder to his 3 children, to be divided equally among them; how much did his wife and each of the children receive?

15. A dealer paid $100 for 42 boxes of soap, each box containing 48 pounds. If he sold the soap for 7 cents a pound, how much did he gain?

16. What is the distance in yards around a field which is 350 feet long and 250 feet wide?

17. If a man earns $936 a year, what is his weekly salary?

207. 1. Write in figures and add:

Eight hundred six dollars, seventy-five cents.
Forty-nine dollars, three cents.
Two hundred eighty-four dollars, eighty-seven cents.
Sixty-nine dollars.
Eight hundred forty-three dollars, ninety-two cents.
Eighty-seven cents.
Five hundred eighteen dollars, ninety-six cents.

2. 703,080 − 29,738 = ?
3. 59,084 × 7002 = ?
4. 21,763 × 2700 = ?
5. 293,224 ÷ 5 = ?
6. $4600.99 ÷ $.07 = ?
7. 483,142 ÷ 9 = ?
8. $927,049 ÷ 11 = ?
9. $4150.12 ÷ 12 = ?
10. 5,414,538 ÷ 65 = ?
11. $90,853 ÷ $.98 = ?
12. 34,225 ÷ 649 = ?
13. $63 ÷ .75 = ?

14. If a milkman receives 7 cents a quart for milk, what does he receive for 24 gallons?

15. If a railroad train goes 42 miles an hour, how many hours will it take to go 1050 miles?

16. A man sold $\frac{2}{3}$ of a lot of land 150 feet long and 80 feet wide for 35 cents a square foot. What did he receive for the land he sold, and how many square feet had he left?

17. If 80 men are needed to do a piece of work in 24 days, how many days would it take 10 men to do it?

208. 1. Write in figures and add:

Five million, thirty thousand, eighty-four.
Seven hundred twenty-six thousand, nine hundred thirty-five.
Eighty thousand, eighty.
Nine million, thirteen.
Eighty-four thousand, seven hundred fifty-six.
Eight million, ninety-five thousand.
Seven hundred ten thousand, thirteen.
Six million, forty thousand, nine hundred eight.

2. From three thousand eight dollars, one cent, take seven hundred twenty-five dollars, ninety-eight cents.

3. $53{,}297 \times 8065 = ?$
4. $40{,}186 \times \$56.80 = ?$
5. $217{,}054 \div 4 = ?$
6. $591{,}128 \div 6 = ?$
7. $579{,}166 \div 8 = ?$
8. $965{,}081 \div 11 = ?$
9. $225{,}083 \div 12 = ?$
10. $\$20{,}768 \div 43 = ?$
11. $\$49{,}644 \div \$.57 = ?$
12. $\$66{,}212.42 \div \$7.08 = ?$

13. A man bought a lot of land 80 feet long and 45 feet wide for 45 cents a square foot, and sold it for $2000; what did he gain?

14. A man bought a lot of land 96 feet long and 45 feet wide for 40 cents a square foot, and sold it so as to gain $\frac{1}{6}$ of the cost; what was the selling price?

15. A dealer bought 46 barrels of flour for \$7 a barrel, and 84 barrels at \$5 a barrel. He sold the whole for \$6 a barrel; what did he gain?

16. A dealer bought 927 barrels of flour at \$6 a barrel. He sold $\frac{7}{9}$ of them for \$7 a barrel, and the remainder for \$5 a barrel. Did he gain or lose, and how much?

209. 1. \$7000 + \$7096.96 + \$842 + \$8.42 + \$79.65 + \$893.75 + \$870.07 + \$5000 = ?

2. 708,002 − 59,296 = ?
3. \$387.25 × 349 = ?
4. 91,064 × 943 = ?
5. 549,127 ÷ 2 = ?
6. \$3817.01 ÷ 7 = ?
7. \$5794.16 ÷ \$.09 = ?
8. 633,258 ÷ 11 = ?
9. 198,059 ÷ 12 = ?
10. \$61,166 ÷ 72 = ?
11. \$32,074 ÷ \$.86 = ?
12. 20,426,399 ÷ 267 = ?
13. 4862 ÷ 99 = ?

14. A man bought 4 bushels of peaches at $2\frac{1}{2}$ dollars a bushel and sold them for 80 cents a peck; what did he gain?

15. John traveled 8 hours at the rate of $8\frac{1}{2}$ miles an hour, and George traveled 9 hours at the rate of $7\frac{1}{3}$ miles an hour; who traveled farther, and how much?

16. What would a boy receive for $4\frac{1}{2}$ pecks of berries at 12 cents a quart?

17. In a school building are 14 rooms, each seating 48 pupils. In the hall of the same building are the same number of seats, arranged in 21 rows; how many seats are there in each row?

210. 1. Add:

968,594
736,842
998,796
438,965
784,842
969,859
843,728
768,359

2. Subtract:

$4832.56
769.84

3. Multiply:

57,968
716

4. Multiply:

21,403
$60.07

Divide:

(5)
3)208,437

(6)
6)501,071

(7)
8)435,094

(8)
11)641,221

(9)
12)145,493

10. 2,940,762 ÷ 34 = ?

11. $863,676 ÷ $132 = ?

12. $38,617 ÷ $6.09 = ?

13. What is the difference in area between two lots of land, one of which is 180 feet long and 140 feet wide, the other 16 feet square?

14. A man sold a piece of land 96 feet long and 48 feet wide for 35 cents a square foot. He spent $\frac{3}{7}$ of the money for land at $1.28 a square foot. How many square feet did he buy?

15. A man traveled 468 miles. $\frac{8}{9}$ of the distance he traveled by rail, and the remainder in a carriage. How far did he travel by rail? by carriage?

211. 1. $\frac{1}{2}$ of 96 = ?

2. $96 \times \frac{1}{2}$ = how many halves? how many wholes?

$96 \times 84\frac{1}{2} = 96 \times 84$ and $96 \times \frac{1}{2}$.

$84\frac{1}{2} \times 96 = 84 \times 96$ and $\frac{1}{2}$ of 96.

3. $\frac{2}{3}$ of 57 = ?

4. $57 \times \frac{2}{3}$ = how many thirds? how many wholes?

$57 \times 27\frac{2}{3}$ equals 57×27 and $57 \times \frac{2}{3}$.

$27\frac{2}{3} \times 57$ equals 27×57 and $\frac{2}{3}$ of 57.

Observe these examples:

$$\begin{array}{r}96\\ 84\frac{1}{2}\\ \hline 384\\ 768\\ 48\\ \hline 8112\end{array}\qquad\begin{array}{r}84\frac{1}{2}\\ 96\\ \hline 504\\ 756\\ 48\\ \hline 8112\end{array}\qquad\begin{array}{r}57\\ 27\frac{2}{3}\\ \hline 399\\ 114\\ 38\\ \hline 1577\end{array}\qquad\begin{array}{r}27\frac{2}{3}\\ 57\\ \hline 189\\ 135\\ 38\\ \hline 1577\end{array}$$

Perform the following in the same manner:

5. $875\frac{1}{2} \times 48 = ?$
6. $864 \times 96\frac{1}{2} = ?$
7. $794\frac{2}{3} \times 72 = ?$
8. $738 \times 58\frac{2}{3} = ?$
9. $927\frac{1}{4} \times 76 = ?$
10. $385 \times 69\frac{2}{5} = ?$
11. $336 \times 76\frac{1}{6} = ?$
12. $847\frac{2}{7} \times 105 = ?$
13. $648 \times 59\frac{3}{8} = ?$
14. $347\frac{4}{11} \times 286 = ?$
15. $588 \times 469\frac{7}{12} = ?$
16. $869\frac{8}{9} \times 738 = ?$

212. 1. Write in figures and add:

Four hundred eighty-two dollars, four cents.
Ninety-five dollars, seventy-three cents.
Two hundred eighty-four dollars, sixty-eight cents.
Seven hundred dollars, fifty-nine cents.
Seven dollars, fifty-nine cents.
Seven hundred fifty-nine dollars.
Three dollars, fifty cents.
Ninety cents.

2. $\$5096 - \$38.97 = ?$
3. $39{,}056 \times \$8050 = ?$
4. $81{,}274 \times 5008 = ?$
5. $768 \times 45\frac{1}{2} = ?$
6. $936{,}718 \div 4 = ?$
7. $118{,}390 \div 5 = ?$
8. $\$9287.19 \div \$.07 = ?$
9. $\$2125.50 \div 9 = ?$
10. $434{,}043 \div 11 = ?$
11. $1{,}354{,}570 \div 29 = ?$
12. $\$52{,}435 \div \$5.85 = ?$
13. $2{,}701{,}982 \div 6806 = ?$

14. What is the cost of $26\frac{3}{4}$ pounds of cheese at 16 cents a pound?

15. At the rate of $18\frac{1}{2}$ miles per hour, how far would a steamboat go in 24 hours?

16. How many house lots, each 90 feet long and 50 feet wide, would a piece of land make which is 800 feet long and 180 feet wide?

213. 1. Write in figures and add:

Seven million, eighty-four thousand, eighteen.
Nine hundred sixty-five thousand, eight hundred four.
Four million, thirty thousand, eighty.
Eighty-three thousand, two hundred ninety-five.
Seven hundred eighty-four thousand, seventy-nine.

Five million, twenty thousand, three hundred eighty-four.
Seven million, nineteen.
Forty-six thousand, five hundred sixty-nine.

2. $7010.10 − $2654.03 = ?
3. 72,851 × 3420 = ?
4. 90,364 × 4023 = ?
5. $849\frac{3}{4} \times 92 = ?$
6. 271,947 ÷ 5 = ?
7. 876,594 ÷ 7 = ?
8. 559,127 ÷ 8 = ?
9. 183,093 ÷ 11 = ?
10. 394,098 ÷ 12 = ?
11. 3,085,850 ÷ 41 = ?
12. $72,136 ÷ 921 = ?
13. 5,139,251 ÷ 7625 = ?

14. How many square feet of window surface does a room contain which has 4 windows, each 4 feet high and $2\frac{1}{2}$ feet wide?

15. The window surface of a schoolroom should be $\frac{1}{5}$ as great as the floor surface. How many square feet of window surface ought a room to have which is 25 feet long and 22 feet wide?

16. How many square feet of window surface ought a schoolroom to have which is 32 feet square?

214. 1. $8080.95 + $729.63 + $82.07 + $540.82 + $9010.75 + $867.87 + $.93 + $800 = ?

2. 500,009 − 129,087 = ?
3. 97,032 × $80.60 = ?
4. 81,546 × 6008 = ?
5. $846\frac{1}{3} \times 84 = ?$
6. 169,464 ÷ 3 = ?
7. 401,229 ÷ 6 = ?
8. 236,875 ÷ 9 = ?
9. 738,964 ÷ 11 = ?
10. 394,098 ÷ 12 = ?
11. 146,535 ÷ 38 = ?
12. $70,624 ÷ $8.91 = ?
13. 2,395,548 ÷ 9738 = ?

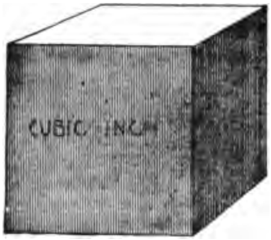
14. A schoolroom 26 feet long and 24 feet wide contains 5 windows, each 6 feet high and 3 feet wide. Has it sufficient window surface?

15. A schoolroom is 27 feet long and 20 feet wide. How many windows, each containing 18 square feet, ought it to have, if the whole window surface is $\frac{1}{5}$ of floor surface?

16. A schoolroom is 20 feet long and 18 feet wide. How many windows each 4 feet high and 3 feet wide must it contain to make the window surface equal to $\frac{1}{5}$ of the floor surface?

SECTION XV

CUBIC MEASURE



1-INCH CUBE.

215. 1. What is the name of the solid represented above?

2. How many faces has a cube?

3. What is the form of each face?

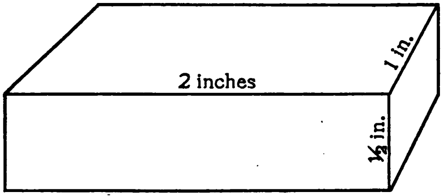
4. What is the area of each face of a 1-inch cube? of a 2-inch cube?

5. Build a 2-inch cube. How many 1-inch cubes are required to build it?

6. Build a 3-inch cube. How many 1-inch cubes are required to build it?

7. Build with 1-inch cubes a solid which is 4 inches long, 2 inches wide, and 1 inch high. How many 1-inch cubes are required to build it?

8. Build with 1-inch cubes a solid which is 4 inches long, 2 inches wide, and 2 inches high. How many 1-inch cubes are required to build it?



9. How does the solid represented above compare in size with a 1-inch cube?

10. The *solid content* of a 1-inch cube, or of a solid equal to it, is called a *cubic inch.* What is the solid content of a 2-inch cube? (Build again if necessary.)

11. What is the solid content of a 3-inch cube?

12. What is the solid content of a solid 4 inches long, 2 inches wide, and 2 inches high?

13. How do you find the area of a rectangular surface?

14. How do you find the area in square feet of a rectangular surface whose length and width are given in yards?

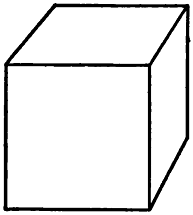
15. How do you find the area in square yards of a rectangular surface whose length and width are given in feet?

16. How can you find the solid content of a solid whose dimensions are given in inches?

17. Find the solid content in cubic inches of a solid 8 inches long, 4 inches wide, and 3 inches high.

18. Find the solid content in cubic inches of a solid of any length, width, and height you choose.

216.



1. What is the solid content of a solid 3 feet long, 3 feet wide, and 1 foot high? of a 2-foot cube?

2. Find how many cubic inches are equal to 1 cubic foot.

3. Find how many cubic feet of air space are in a room 18 feet long, 12 feet wide, and 9 feet high.

4. Find how many cubic feet of air space are contained in a schoolroom 32 feet long, 30 feet wide, and 15 feet high.

5. How many cubic feet of air space are contained in a schoolroom 26 feet long, 24 feet wide, and 14 feet high.

6. How many cubic feet of air space are contained in a schoolroom 25 feet long, 22 feet wide, and 12 feet high?

7. A schoolroom should contain 250 cubic feet of air space for each person. At that rate how many pupils should be accommodated in each of the three schoolrooms just mentioned?

8. If a schoolroom 28 feet long, and 25 feet wide, and 15 feet high, seats 42 pupils, how much air space is allowed for each pupil?

9. A schoolroom is 36 feet long, 25 feet wide and 15 feet high. How many pupils can be accommodated in it, allowing 250 cubic feet of air space for each one?

10. How many cubic feet does a bin contain which is 108 inches long, 96 inches wide, and 72 inches high?

11. Find how many cubic feet are equal to a cubic yard.

217.

A pile of wood 8 *feet long,* 4 *feet wide, and* 4 *feet high is called a cord of wood.*

1. How many cubic feet are in a cord? in 2 cords?

2. A bin is 9 feet long, 8 feet wide, and 8 feet high; how many cubic feet does it contain?

3. A bin contains 576 cubic feet; how many cords of wood does it hold?

4. How many cubic feet are in $4\frac{1}{2}$ cords?

5. How many cords of wood does a bin contain which is 9 feet long, 8 feet wide, and 8 feet high?

6. How many cubic feet are in $6\frac{3}{4}$ cords? in $9\frac{5}{8}$ cords?

7. At $ 6 a cord what is the cost of $8\frac{3}{4}$ cords?

8. A bin is 10 feet long, 9 feet wide, and 8 feet high. How many cords of wood does it hold?

9. A bin holds 6 cords of wood. How many cubic feet does it contain?

10. A bin holds 6 cords of wood. It is 8 feet high and 8 feet wide; how long is it?

11. A bin holds $8\frac{3}{4}$ cords of wood. It is 10 feet wide and 8 feet high; how long is it?

SECTION XVI

WRITTEN EXERCISES

218. 1. Write in figures and add:

Seven hundred sixty-five thousand, forty-eight.

Three hundred ninety-eight thousand, nine hundred sixty-seven.

Five hundred forty-six thousand, eight hundred seventy-four.

Three hundred ninety-eight thousand, eighty-nine.

Six hundred four thousand, four hundred six.

Eight hundred seventy-nine thousand, five hundred sixty-eight.

Six hundred thirty-seven thousand, two hundred ninety-five.

Five hundred ninety-nine thousand, eighty-nine.

2. $5801 − $2965.32 = ?
3. 39,186 × 7014 = ?
4. 24,705 × 4170 = ?
5. $837 \times 56\frac{1}{3} = ?$
6. 156,837 ÷ 2 = ?
7. $5830.25 ÷ $.07 = ?
8. $4519 ÷ 8 = ?
9. $4047.58 ÷ 11 = ?
10. 428,068 ÷ 12 = ?
11. 129,386 ÷ 27 = ?
12. $23,542 ÷ $3.87 = ?
13. 1,145,999 ÷ 2513 = ?

14. What is the distance in yards around a field which is 500 feet long and 400 feet wide?

15. What is the distance in feet around a garden which is 6 yards long and 4 yards wide?

16. Find the area in square feet of the garden described in question 15.

219. 1. Write in figures and add:

Eight hundred thirty dollars, thirty-seven cents.
Ninety-six dollars, eighty-two cents.
Five hundred forty dollars, ninety cents.
Seventy-two dollars, one cent.
Eight hundred sixty-three dollars.
Fifty-nine dollars, thirty-seven cents.
Six dollars, seventy-five cents.
Ninety-two cents.

2. $875,280 - 196,809 = ?$
3. $75,460 \times 5920 = ?$
4. $92,831 \times 9025 = ?$
5. $848 \times 96\frac{1}{4} = ?$
6. $357,869 \div 4 = ?$
7. $286,766 \div 5 = ?$
8. $165,456 \div 6 = ?$
9. $\$8,452.40 \div \$.09 = ?$
10. $\$887,001 \div \$12 = ?$
11. $\$51,539.50 \div \$.56 = ?$
12. $\$7441 \div 198 = ?$
13. $1,807,953 \div 5271 = ?$

14. If a dealer buys cranberries for $2.50 a bushel and sells them for 10 cents a quart, how much does he gain on 12 bushels?

15. How many square yards of oilcloth are required to cover a floor 18 feet long and 15 feet wide?

16. What will it cost at 65 cents a square yard?

220. 1. Write in figures and add:

Six hundred sixty-eight thousand, seven hundred twenty-nine.
Five hundred forty-nine thousand, eighty-four.
Three hundred ninety-seven thousand, two hundred ninety-six.
Six hundred thirty-eight thousand, seven hundred fifty-four.
Nine hundred seventy-six thousand, six hundred seventy-nine.

Six hundred ninety-five thousand, four hundred sixty-three.
Nine hundred eighty-four thousand, seven hundred twenty-nine.
Three hundred forty-six thousand, eight hundred forty-three.

2. $3008 − $29.37 = ?
3. 59,036 × 8304 = ?
4. 28,741 × 438 = ?
5. 845 × $67\frac{3}{5}$ = ?
6. 538,339 ÷ 6 = ?
7. 367,766 ÷ 7 = ?

8. 495,076 ÷ 8 = ?
9. 651,079 ÷ 11 = ?
10. 543,092 ÷ 12 = ?
11. $2527.05 ÷ $.92 = ?
12. $36,609 ÷ $5.42 = ?
13. 1,874,972 ÷ 1982 = ?

14. A dealer bought 46 boxes of lemons, each box containing 144 lemons, at $1 a box. $\frac{1}{6}$ of the lemons were spoiled, and the remainder were sold for 12 cents a dozen. Did the dealer gain or lose, and how much?

15. A hall contains 8 rows of benches, 25 benches in each row. If each bench seats 5 persons, how many persons can be seated in the hall?

16. How many square feet of window surface has a schoolroom which contains 6 windows, each 6 feet high and $3\frac{1}{2}$ feet wide?

221. 1. $864.75 + $79.08 + $320.82 + $82 + $7.96 + $859.67 + $30.96 + $.84 = ?

2. 628,541 − 199,394 = ?
3. 87,016 × 59,700 = ?
4. 29,453 × $90.75 = ?
5. $849\frac{5}{6}$ × 84 = ?
6. 153,869 ÷ 6 = ?
7. 851,929 ÷ 3 = ?

8. 673,883 ÷ 9 = ?
9. 677,082 ÷ 11 = ?
10. 219,195 ÷ 12 = ?
11. 490,888 ÷ 75 = ?
12. $10,702 ÷ $2.75 = ?
13. 2,286,522 ÷ 4347 = ?

14. A schoolroom is 32 feet long, 28 feet wide, and 12 feet high. If 45 pupils are seated in it, how many cubic feet of air space are allowed to each person?

15. A dealer bought 144 oranges at 30 cents a dozen and sold them for 3 cents apiece. What did he gain on the whole?

16. A man having 450 acres of woodland and 250 acres of pasture sold $\frac{4}{9}$ of his woodland and $\frac{2}{5}$ of his pasture. How many acres of each had he left?

222. 1. Write in figures and add:

Nine million, eighty-three thousand, forty-nine.
Seven hundred sixty-eight thousand, two hundred ninety-five.
Forty-nine thousand, seven hundred sixty-three.
Three hundred eighty-four thousand, nine hundred eighty-nine.
Four million, ninety-six thousand, ninety-seven.
Nine hundred eight thousand, two hundred eighty-six.
Three million, eighty-four thousand, nine hundred sixty-eight.
Three hundred twenty-eight thousand, seven hundred ninety-nine.

2. $ 9380.67 − $ 2948 = ?
3. 86,053 × 2006 = ?
4. 47,192 × 6020 = ?
5. $6784\frac{3}{5} \times 65 = ?$
6. 390,499 ÷ 4 = ?
7. 191,047 ÷ 5 = ?
8. 252,085 ÷ 7 = ?
9. 769,056 ÷ 11 = ?
10. 342,937 ÷ 12 = ?
11. 6,003,675 ÷ 69 = ?
12. 1,882,321 ÷ 763 = ?
13. $ 28,405 ÷ 8069 = ?

14. A man sold $\frac{3}{4}$ of a lot of land 596 feet long and 375 feet wide for 20 cents a square foot; what did he receive for it?

15. A man worked 8 hours a day, 6 days a week, for 12 weeks, at 15 cents an hour; how much did he earn?

16. How many cords of wood are there in a pile of wood 24 feet long, 8 feet wide, and 8 feet high?

223. 1. Write in figures and add:

Three thousand, two hundred seventy-six dollars.
Four hundred eighty dollars, five cents.
Seventy-nine dollars, twenty-eight cents.
Three thousand dollars.
Eighty-nine dollars, seventy-five cents.
Fourteen dollars, nineteen cents.
Three hundred eighty-four dollars, seven cents.
Eighty-six cents.

2. $908{,}030 - 549{,}067 = ?$
3. $56{,}197 \times \$80.90 = ?$
4. $28{,}043 \times 9800 = ?$
5. $756 \times 76\frac{2}{9} = ?$
6. $\$130{,}498 \div \$2 = ?$
7. $442{,}943 \div 6 = ?$
8. $\$3484.26 \div 8 = ?$
9. $\$2660.86 \div \$.11 = ?$
10. $\$9431.17 \div 12 = ?$
11. $512{,}888 \div 55 = ?$
12. $\$31{,}586 \div \$4.54 = ?$
13. $\$49{,}198 \div 7592 = ?$

14. A man hired 4 men for 12 weeks, 6 days a week, at $2.25 a day each. How much did he pay them all?

15. A dealer bought goods for $873 and sold them so as to gain $\frac{1}{5}$ of the cost. Find the gain and selling price.

16. A man bought a lot of land 96 feet long and 50 feet wide for 35 cents a square foot. He built a house on it which cost $4800. He then sold the property so as to gain $\frac{1}{6}$ of the whole cost. What was the selling price?

224. 1. Write in figures and add:

Seven million, ninety-six thousand, four hundred eight.

Three hundred twenty-nine thousand, seven hundred ninety-three.

Eight million, four hundred nine thousand, six hundred forty-eight.

Nine hundred sixty-seven thousand, four hundred ninety-three.

Nine million, eighty-eight thousand, five hundred sixty-eight.

Seven hundred ninety-three thousand, eight hundred ninety-six.

Five million, eight hundred forty-nine thousand, seven hundred eight.

Nine hundred eighty-six thousand, five hundred thirty-nine.

2. $\$6840 - \$2975.63 = ?$
3. $82,756 \times 7260 = ?$
4. $34,910 \times 2607 = ?$
5. $279\frac{3}{7} \times 98 = ?$
6. $\$7370.65 \div \$.05 = ?$
7. $443,728 \div 7 = ?$
8. $412,783 \div 9 = ?$
9. $714,803 \div 11 = ?$
10. $575,264 \div 12 = ?$
11. $148,041 \div 84 = ?$
12. $\$25,990 \div \$8.16 = ?$
13. $4,630,468 \div 5839 = ?$

14. If 34 yards of carpeting are worth \$51.68, what is the value of 3 pieces of 45 yards each at the same rate?

15. A dealer bought 63 gallons of molasses for \$25.20 and sold it for 12 cents a quart. What did he gain?

16. How many bins 12 feet long, 4 feet wide, and 4 feet high, are required to hold 9 cords of wood?

225. 1. $\$594.87 + \$68.75 + \$9.84 + \$708.90 + \$84.37 + \$640.04 + \$89.75 + \$848.39 = ?$

2. $706,080 - 239,541 = ?$
3. $54,296 \times 4531 = ?$
4. $13,708 \times 5135 = ?$
5. $387 \times 68\frac{5}{9} = ?$

6. 189,259 ÷ 4 = ?
7. 269,728 ÷ 6 = ?
8. 212,786 ÷ 8 = ?
9. 873,196 ÷ 11 = ?
10. 651,329 ÷ 12 = ?
11. 326,602 ÷ 36 = ?
12. $ 14,652 ÷ $ 5.92 = ?
13. 2,882,800 ÷ 8307 = ?

14. A farmer bought 75 head of cattle for $ 35 a head; 6 of them died, and he sold the remainder for $ 45 a head. How much did he gain on the whole?

15. A dealer bought 104 pieces of cloth at $ 4.50 each. He sold $\frac{5}{8}$ of them for $ 6 apiece, and the remainder for $ 4 apiece. Did he gain or lose, and how much?

16. How many house lots, each 96 feet long and 48 feet wide, can be laid out from a piece of land 288 feet long and 192 feet wide?

226. 1. Write in figures and add:

Eight hundred forty-six thousand, two hundred ninety-eight.
Seven hundred sixty-three thousand, eight hundred forty-six.
Nine hundred fifty-five thousand, three hundred eighty-eight.
Two hundred ninety-six thousand, five hundred ninety-nine.
Seven hundred eighty-four thousand, six hundred eighty-three.
Four hundred ninety-five thousand, seven hundred twenty-nine.
Nine hundred eighty-four thousand, six hundred eighty-three.
Seven hundred twenty-nine thousand, six hundred seventy-nine.

2. $ 4050 − $ 86.37 = ?
3. 75,019 × 5684 = ?
4. 28,436 × 8546 = ?
5. $684\frac{7}{9} \times 286 = ?$
6. 137,634 ÷ 3 = ?
7. 197,663 ÷ 7 = ?

8. $3123.59 ÷ $.05 = ?
9. $5385.45 ÷ 8 = ?
10. $2174.05 ÷ 11 = ?
11. 383,706 ÷ 58 = ?
12. $68,316 ÷ $9.07 = ?
13. 889,500 ÷ 2916 = ?

14. A man bought a farm of 416 acres for $35 an acre. He paid $8000 down and the remainder in 3 equal annual payments. How much was each payment?

15. If 3 pickets are used to each foot of fence, how many pickets are required to inclose a lot 90 feet long and 48 feet wide?

16. How many cords of wood are there in a pile of wood 48 feet long, 32 feet wide, and 4 feet high?

227. 1. Write in figures and add:
Nine thousand ten dollars.
Eight hundred forty-nine dollars, three cents.
Seventy-five dollars, eighty-seven cents.
Nine hundred sixty-eight dollars, four cents.
Five thousand dollars.
Seven hundred twenty-eight dollars, ninety-six cents.
Ninety-eight dollars, fifty-seven cents.
Three thousand sixty dollars, ninety-five cents.

2. 845,296 − 198,088 = ?
3. 68,027 × 732 = ?
4. 39,154 × 3720 = ?
5. $684\frac{7}{9} \times 286 = ?$
6. $4630.84 ÷ $.05 = ?
7. $4767.78 ÷ $.06 = ?
8. 620,097 ÷ 8 = ?
9. $2447.35 ÷ 7 = ?
10. 826,913 ÷ 12 = ?
11. 682,844 ÷ 94 = ?
12. 5,588,693 ÷ 7603 = ?
13. 2,572,467 ÷ 278 = ?

14. A dealer bought chairs for $9.25 each and sold them for $11 each. How much did he gain on a dozen?

15. A man earned $150 a month for 10 months each year. For 12 months each year he spent $22 a month for rent, $40 a month for provisions, and $50 a month for other expenses. How much did he save in a year?

16. If 12 tables cost $93, what is the cost of 25 tables at the same rate?

228. 1. Write in figures and add:

Five million, eighty-four thousand, seven hundred twenty-eight.
Six million, nine hundred seven thousand, eighty.
Four million, thirty-nine.
Six million, seventy-five thousand.
Eighty-four thousand, ninety.
Six hundred seventy-six thousand, nine hundred twenty-eight.
Seven million, eighty-three thousand, six hundred ninety-five.
Four hundred ninety thousand, eighty-four.

2. $7000 − $78.52 = ?
3. 78,043 × 9100 = ?
4. 29,615 × 9010 = ?
5. $768\frac{4}{9} \times 432 = ?$
6. 197,069 ÷ 2 = ?
7. $5280.64 ÷ $.07 = ?
8. $1144.06 ÷ 9 = ?
9. 338,358 ÷ 8 = ?
10. 577,607 ÷ 11 = ?
11. 627,693 ÷ 82 = ?
12. $16,447.25 ÷ $.25 = ?
13. 2,549,082 ÷ 373 = ?

14. If 69 acres of land produce 3726 bushels of wheat, how many bushels will 207 acres produce?

15. If 4 tables cost $25, how much will 17 tables cost at the same rate?

16. A boy who had $9 spent $\frac{1}{5}$ of it for a book, and the remainder for 6 pictures. What did he pay for each picture?

229. 1. $875.50 + $96.75 + $500 + $76.87 + $.95 + $610.46 + $84.59 + $.87 = ?

2. 805,297 − 192,899 = ?
3. $389\frac{5}{7} \times 84 = ?$
4. $384\frac{2}{5} \times 135 = ?$
5. $769\frac{4}{7} \times 63 = ?$
6. $549 \times 74\frac{7}{9} = ?$
7. $3899.84 ÷ $ .05 = ?
8. 355,749 ÷ 6 = ?
9. 731,277 ÷ 8 = ?
10. $1536.49 ÷ $.07 = ?
11. $4498.74 ÷ 12 = ?
12. 3,019,600 ÷ 77 = ?
13. $27,806 ÷ $4.86 = ?
14. $27,867.25 ÷ $60.71 = ?
15. 13,275 ÷ 48 = ?

16. A hall contains 8 rows of benches, 36 benches in each row, each bench seating 6 persons. How many persons can be seated in the hall?

17. A man had a piece of land 876 feet long and 343 feet wide. He sold $\frac{4}{7}$ of it at 40 cents a square foot. How much did he receive for it?

230. 1. Write in figures and add:
Six thousand dollars.
Seven hundred ninety-six dollars, forty-two cents.
Eighty-three dollars, seventy-five cents.
Nine hundred sixty-eight dollars, twenty-five cents.
Seven thousand eighty dollars.
Five hundred eighty-four dollars, sixty-three cents.
Eighty-nine dollars, four cents.
Five dollars, thirty cents.

2. $8900 − $529.87 = ?
3. $843\frac{4}{5} \times 485 = ?$
4. $846\frac{2}{9} \times 261 = ?$
5. $976 \times 69\frac{5}{8} = ?$
6. $294 \times 68\frac{4}{7} = ?$
7. 314,288 ÷ 5 = ?

8. 658,129 ÷ 7 = ?
9. 731,277 ÷ 8 = ?
10. 302,895 ÷ 9 = ?
11. 239,563 ÷ 12 = ?
12. 5,796,412 × 63 = ?
13. $806 ÷ $2.54 = ?
14. $28 ÷ $6.29 = ?
15. $6398 ÷ $8.68 = ?
16. $971 ÷ $4.58 = ?
17. $865 ÷ $.75 = ?

231. 1. $12,402 ÷ $1.96 = ?
2. $22,249.71 ÷ $34.65 = ?
3. $13,449 ÷ 418 = ?
4. $5,204.28 ÷ 1684 = ?
5. 1,261,830 ÷ 235 = ?
6. $16,695 ÷ $47.28 = ?
7. $42,163.92 ÷ $6.29 = ?
8. $9265 ÷ 2036 = ?
9. $43,958.75 ÷ 843 = ?
10. 6,126,875 ÷ 9528 = ?
11. $47,268 ÷ $7.02 = ?
12. $51,530.47 ÷ $69.73 = ?
13. $23,342 ÷ 357 = ?
14. $24,048.75 ÷ 3745 = ?
15. 7,313,896 ÷ 971 = ?
16. $30,168 ÷ $76.94 = ?
17. $11,219.48 ÷ $7.64 = ?
18. $18,269 ÷ 5817 = ?
19. $52,928.42 ÷ 586 = ?
20. 4,636,532 ÷ 8459 = ?

232.
4 gills (gi.) = 1 pint (pt.)
2 pints = 1 quart (qt.)
4 quarts = 1 gallon (gal.)
31½ gallons = 1 barrel (bbl.)
63 gallons = 1 hogshead (hhd.)

1. Change 18 gallons to quarts.
2. Change 17 gallons, 3 quarts to quarts.
3. Change 25 gallons, 2 quarts to pints.
4. Change 38 gallons, 3 quarts, 1 pint to pints.
5. Change 42 gallons, 2 quarts, 1 pint to gills.

6. Change 37 gallons, 3 quarts, 1 pint, 3 gills to gills.

7. Change 46 gills to pints.

8. Change 11 pints, 2 gills to quarts.

9. A man sold 36 gallons of milk at 7 cents a quart; what did he receive for it?

10. What is the cost of a barrel of molasses at 11 cents a quart?

11. What is the cost of a hogshead of molasses at 12 cents a quart?

12. A man bought 40 gallons of cider for $ 8 and sold it for 8 cents a quart. Did he gain or lose, and how much?

13. A man bought a barrel of molasses for $10.80 and sold it so as to gain $\frac{1}{6}$ of the cost. At what price per quart did he sell it?

14. What will a dealer receive for 24 gallons, 3 quarts of milk at 6 cents a quart?

15. What is the cost of a barrel of vinegar at 8 cents a quart?

16. What would a dealer gain on a barrel of vinegar which he bought for $ 12 and sold for 12 cents a quart?

233.

2 pints = 1 quart
8 quarts = 1 peck (pk.)
4 pecks = 1 bushel (bu.)

1. Change 24 pecks, 6 quarts to quarts.

2. Change 200 quarts to pecks.

3. Change 48 bushels, 3 pecks to pecks. Change the same to quarts.

4. Change 225 quarts to pecks. Change the same to bushels.

5. Change 35 bushels, 2 pecks, and 5 quarts to quarts.

6. Change $28\frac{1}{2}$ bushels to pecks.

7. Change $37\frac{1}{2}$ pecks to quarts.

8. A boy picked 2 bushels of berries and sold them for 12 cents a quart. How much did he receive for them?

9. A man bought 20 bushels of cranberries for $ 50. For how much a quart must he sell them to gain $ 7.60 on the whole?

10. A dealer bought 16 bushels of potatoes for $ 1.40 a bushel. For how much a peck must he sell them to gain $\frac{1}{5}$ of the cost?

11. A dealer bought 18 bushels of potatoes for $ 21.60. For how much a peck must he sell them to gain $\frac{1}{5}$ of the cost?

12. A dealer bought 80 bushels of apples for $ 150. He sold them for 60 cents a peck; how much did he gain?

234. 12 inches (in.) = 1 foot (ft.)
3 feet = 1 yard (yd.)
$5\frac{1}{2}$ yards or $16\frac{1}{2}$ feet = 1 rod (rd.)

1. 7 feet are how many times 1 inch?

2. 16 yards are how many times 1 foot?

3. 1 rod is how many times an inch?

4. 72 rods are how many times 1 foot?

5. At 7 cents a foot, what would be the cost of picture molding for a room 18 feet long and 16 feet wide?

6. At $1.50 a yard, what would be the cost of a picket fence to inclose a lot 90 feet long and 60 feet wide?

7. What is the price of 17 feet of wire netting if a yard costs 75 cents?

8. If 6 yards of cloth cost $15, what is the cost of 14½ yards?

9. How many yards is it around a field 240 feet long and 150 feet wide?

10. Change 4 rods, 4 yards to yards.

11. Change 6 rods, 8 yards to feet.

12. Change 5 yards, 2 feet to inches.

235. 144 square inches = 1 square foot
9 square feet = 1 square yard

1. Change 216 square yards to square feet.

2. Change 216 square feet to square yards.

3. Change 5 square yards, 8 square feet to square feet.

4. Change 17 square yards, 3 square feet to square inches.

5. Change 16 square yards, 4 square feet, 10 square inches to square inches.

6. Change 216 square inches to square feet.

7. Change 891 square feet to square yards.

8. Change 1296 square inches to square yards.

9. Find the area in square feet of a floor 16 feet long and 12 feet wide.

10. Find the area in square yards of a floor 17 yards long and 12 yards wide.

11. Find the area in square feet of a floor 16 yards long and 12 yards wide.

12. Find the area in square yards of a floor 50 feet long and 36 feet wide.

13. Find the cost of oilcloth at 75 cents a square yard to cover a floor 18 feet long and 14 feet wide.

14. How many windows 6 feet long and 3 feet wide should a room have which is 30 feet long and 24 feet wide, that the window surface may be $\frac{1}{5}$ of the floor surface?

15. If a room 20 feet long requires 40 square yards of oilcloth to cover it, how wide is it?

16. What is the cost of a lot of land 90 feet long and 45 feet wide at 90 cents a square foot?

236. 1728 cubic inches = 1 cubic foot.
27 cubic feet = 1 cubic yard.
128 cubic feet = 1 cord.

1. How many cords of wood are in a pile 64 feet long, 32 feet wide, and 32 feet high?

2. If a pile of wood 32 feet long, and 16 feet wide contains 12 cords, how high is it?

3. If a room is 18 feet long, 16 feet wide, and $8\frac{1}{2}$ feet high, how many cubic feet of air space does it contain?

4. If a room is 24 feet long, 18 feet wide, and 11 feet high, how many cubic feet of air space does it contain?

5. If a schoolroom is 36 feet long, 28 feet wide, and 12 feet high, and seats 42 pupils, how many cubic feet of air space is allowed each pupil?

6. If a hall is 75 feet long, 60 feet wide, and 25 feet high, how many persons can be seated in it, allowing 250 cubic feet of air space for each pupil?

7. How many 1-inch cubes can be packed in a box whose inside measure is 9 inches in length, 6 in width, and 6 in height?

8. How many bars of soap 4 inches long, 2 inches wide, and $1\frac{1}{2}$ inches thick can be packed in a box whose inside measure is 24 inches in length, 16 inches in width, and 9 inches in height?

237. 16 ounces (oz.) = 1 pound (lb.)
2000 pounds = 1 ton. (T.)

1. A dealer bought 18 pounds of candy for 16 cents a pound, and sold it at the rate of 3 cents an ounce. What did he gain on the whole?

2. A barrel of flour weighs 196 pounds. What does a dealer gain on each barrel which he buys at the rate of $ 5 a barrel, and sells at the rate of 4 cents a pound?

3. If a family uses 3 ounces of coffee a day, how many days will 12 pounds last it?

4. If a family uses 3 ounces of coffee a day, how many pounds would it use in 48 days?

5. If a family uses 2 pounds of flour a day, how long would a barrel of flour last it?

6. At the rate of 20 cents a pound, what is the cost of $8\frac{1}{2}$ pounds of paper?

7. Carrie bought 4 ounces of candy for 8 cents an ounce. At the same rate, what would be the cost of 4 pounds?

8. Tell the ratio of 1 pound to 1 ounce; to 2 ounces; to 4 ounces; to 8 ounces.

9. Tell the ratio of 1 ounce to 1 pound; of 2 ounces; of 4 ounces; of 8 ounces.

10. If a ton of coal lasts a family 4 weeks, how many pounds does it burn each day on the average?

11. If a family burns 60 pounds of coal a day, how long will a ton last it?

12. How many ounces of coffee can a family use in a day and have 5 pounds last 80 days?

238.

60 seconds (sec.) = 1 minute (min.)
60 minutes = 1 hour (hr.)
24 hours = 1 day (d.)
7 days = 1 week (wk.)
365 days = 1 year (yr.)
366 days = 1 leap year
100 years = 1 century

1. How many school hours are there in a year, if school keeps 5 days in a week, 5 hours a day, 38 weeks in the year, and there are 9 holidays?

2. 875 weeks are how many days?

3. 875 days are how many weeks?

4. How much would a man earn in a year who worked 6 days a week, 50 weeks a year, for $ 2.75 a day, and had 5 holidays for which he received no pay?

5. How many weeks are there in a year?

6. How many days are there in 6 successive years, in which 1 leap year is included?

7. How old is a man who has lived $\frac{4}{5}$ of a century?

8. How many hours are there in 4 weeks?

9. If a man spends $\frac{1}{3}$ of his time asleep, how many hours does he sleep in a year?

10. A man worked 300 days in a year, 10 hours a day. For $\frac{3}{5}$ of his time he received 35 cents an hour, and for the rest 30 cents an hour. How much did he earn in the year?

11. If it took John 18 hours to read a book of 540 pages, how many minutes did it average to a page?

12. If George can write 4 pages in half an hour, how many days, writing 6 hours a day, would it take him to write 240 pages?

239. (Review exercises 168, 169, 170.)

1. If a man sold 120 acres of land for $ 6840, what should he receive for 840 acres at the same rate?

2. If a ship sailed 9000 miles in 54 days, how many miles would it sail in 9 days?

3. If 12 acres of land yield 2500 bushels of potatoes, how many bushels would 84 acres yield at the same rate?

4. If 9 dozen chairs cost $ 125, what is the cost of 36 dozen?

5. If $ 824 buys 8 horses, how many horses at the same rate would $ 2472 buy?

6. If a railroad train goes 5376 miles in 96 hours, how far would it go in 12 hours at the same rate?

7. If 84 acres of land are valued at $ 5642, what is the value of 12 acres at the same rate?

8. If a dealer sells 160 barrels of flour in 4 weeks, how many barrels would he sell in 48 weeks at the same rate?

9. Henry can read 99 pages in 3 hours; how many minutes would it take him to read 11 pages?

10. Jessie can write 2 pages in 15 minutes; how many hours would it take her to write 24 pages?

11. 12 men can do a piece of work in 48 days. How long would it take 4 men to do it?

12. At the rate of $ 40 for 6 chairs, what would be the cost of 6 dozen?

240. 1. $\frac{2}{3}$ of a number is 480; what is the number?

2. A man sold 4200 square feet of land, which was $\frac{4}{9}$ of his whole lot.. How many square feet were in the whole lot?

3. George bought 87 books, which was $\frac{3}{8}$ as many as John had; how many had John?

4. $\frac{3}{5}$ of the value of a lot of land was $ 750; what was the land worth?

5. A wheel turned 360 times in going $\frac{5}{8}$ of a mile; how many times did it turn in going a mile?

6. If $\frac{3}{4}$ of the distance between two places is 3492 miles, what is the whole distance?

7. If $\frac{5}{9}$ of a man's money is $ 87, how much money has he?

8. If $\frac{2}{5}$ of the value of a farm is $ 7643, what is the whole value?

9. If $\frac{6}{7}$ of a ship's cargo weighs 42 tons, what is the whole weight?

10. A man traveled 371 miles, which was $\frac{7}{9}$ as far as he had to travel; how many miles had he still to go?

11. A man spent $\frac{1}{10}$ of his money and had $ 4356 left; what had he at first?

12. A dealer sold $\frac{1}{9}$ of his live stock, and had 256 animals left; how many had he at first?